## GREATER PHILADELPHIA REGION LSAMP ALLIANCE SUPERSTARS



**Regina Cagle, E.I.T.,** is currently a project engineer at EA Engineering, Science & Technology, an environmental consulting firm in the Baltimore area. Trained in environmental engineering at Drexel University (College of Engineering-Class of 2008), Regina has applied both her project experience and post-graduate studies to expand her capabilities, including engineering design and analysis and environmental

compliance in stormwater, energy, and solid waste projects. Regina became driven to hone her technical skills after working with Drexel University's chapter of Engineers Without Borders to design a water distribution system for a small village in El Salvador. In addition, Regina contributes to her technical work the invaluable perspective of her graduate work in sustainability as a Fulbright Scholar to Ecuador, and as an environmental policy intern at the White House Council on Environmental Quality. Through academic and public service commitments across the US and abroad, Regina has developed the ability to bridge the gap between people with language, technical, and academic differences, and continually uses these skills to mentor and develop those around her through her education and engineering outreach efforts.



Richard A. Able Jr. is a dedicated and persistent individual who has proven to be passionate about the advancement of science. A native of Philadelphia, PA, Mr. Able graduated with a BA in Biology from Cheyney University of Pennsylvania in 2004. Integrative in his approach toward problem solving, Mr. Able recognized early on the importance of acquiring the

skill sets of various disciplines. During the summer of 2003, certified in Nanofabrication Manufacturing he was Technology through the Engineering Department of Pennsylvania (Penn) State University. The knowledge acquired at Penn State qualified him to accept a NASA funded research position, which led to the design and utilization of a nanotechnology laboratory at Cheyney. After graduating from Chevney in 2004, Mr. Able was selected as a NASA-NAFEO Ames Academy Scholar under the supervision of Dr. R.H. Rubin. The focus of his research involved the investigation of spacecraft obtained astrophysical data and contributed to one of NASA's primary goals: "Determining the Origins of Life". Recently, Mr. Able successfully defended his graduate research work entitled Real-time measurement of glial progenitor chemotactic migration, under Dr. Maribel Vazquez, Department of Biomedical Engineering, City College of New York, and completed his Ph.D. in Biochemistry on January, 2012. Dr. Able is currently employed with Merck & Co. Inc.



Steven L. Jones, Ph.D. began his undergraduate career at the Community College of Philadelphia, and later matriculated at Temple University, where he subsequently completed a Bachelor of Science degree in Psychology / Cognitive Neuroscience. In 2005, Steven was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship and matriculated at Drexel University to

begin his graduate studies in the department of Neurobiology and Anatomy. In October 2007, he presented his research on "Possible Functional Consequences of Microgravity-Dependent Myosin II Downregulation in Neurons" at Africa's First International Conference on Mission to MARS: The African Perspective in Nigeria. During the final two years of his Ph.D. studies, Steven received financial support for his research from the National Institutes of Health. In spring 2011, he defended his dissertation entitled the "Consequences of Developmental Changes in the Actomyosin and Microtubule Cytoskeleton on Axonal Morphogenesis" and was awarded a Ph.D. degree in Nuerosceince in June 2011. Currently, Dr. Jones is continuing his research in a postdoctoral appointment at the University of Pennsylvania in the Department of Biology.



Yolanda Williams-Bey, Ph.D. began her undergraduate career at the Community College of Philadelphia and became an LSAMP academic scholar earning honors until transferring to Cheyney University of Pennsylvania in 2001. During this period, Yolanda was worked part-time and participated in the astronomy club, the Student National Medical Association, the National

Organization for Black Chemists and Chemical Engineers and also managed to be involved in sports as captain of the basketball team. She was selected for numerous national academic honors and volunteered at Thomas Jefferson University's Physical Therapy department. Three years later, she completed her Bachelor of Arts degree in Biological Sciences. In 2005, she was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship and matriculated at Drexel University to begin her graduate studies in the area of Biological Sciences. In June 2010, Yolanda was awarded a Ph.D. in Biological Sciences at Drexel University. Her dissertation illuminated "The Effect of Regulatory T cells on an Age-altered Specific CD8 T Cell response following Dr. Williams-Bey is currently a Influenza Infection." Postdoctoral Associate, National Institute of Allergy and Infectious Diseases (NIAID) and Intramural Research Training Award (IRTA) recipient at the National Institute of Health.

#### DREXEL UNIVERSITY (Lead Institution)



**Esteban Martinez** is currently a senior at Drexel University majoring in Biology with a concentration in Cell and Molecular Biology. In 2010, Esteban co-authored his first public-cation entitled "Mass action kinetic analysis of multidrug resistance transporters expressed in con-fluent cell monolayer." It will be featured in 2011 printing of the textbook *The Structure of Biological Membranes.* 

Esteban hopes to acquire his Ph.D. in Molecular Biology and further advance science through his research.



Lee Serpas decided to pursue a Bachelor of Science degree in Chemistry at Drexel University. Lee is currently conducted research in the area of "Activation of Tris (Amino-Pyrazole) Zinc Bromide Through Template Analysis" under the guidance of his faculty mentor, Elizabeth Papish, Ph.D. After attaining his Bachelor's degree, Lee aspires to go on to medical school and get his M.D.



Francisco Guevara, from a young age, demonstrated an interest in the different fields of science. After graduating from John B. Alexander Health and Science High School, he chose to major in Chemistry at Drexel University. He is currently in his senior year and is conducting research in Matrix-Assisted Laser Desorption/Ionization- Time-of-Flight Mass Spectrometry (MALDI-

TOF MS). Francisco presented a poster on his research at the American Society for Mass Spectrometry Conference in summer 2011. Francisco aspires to get his Ph.D. in Chemistry and to continue in the field of research.



Ryan Powell chose to pursue a Bachelor of Science degree in Mechanical Engineering at Drexel University. After completing his freshman year, Ryan conducted research, and subsequently completed his first co-op experience at The National Institute of Standards and Technology where he was credited with

his first publication entitled "Modeling the Effects of Outdoor Gasoline Powered Generator Use on Indoor Carbon Monoxide Exposures — Phase II". He was most recently awarded the prestigious NASA MUST or Motivating Undergraduates in Science & Technology Scholarship. Ryan aspires to obtain his Masters in Chemical Engineering and his Ph.D. in Electrical Engineering. In the future, he would like to become a college professor as well as to start his own engineering firm.



**Ekene Arinze** is a sophomore at Drexel University in Information Technology. During the summer preceding her sophomore year, Ekene conducted research on the use of technology in community healthcare. Ekene worked on gaining a better understanding of how patients use the Internet to search for health-related information and the utility of such information. Ultimately, these findings will be used to redesign an

existing prototype user interface.



Rhea Thompson she is a senior at Drexel University majoring in **Biological** Sciences with a concentration in Cell, Molecular Biology, Genetics and Biochemistry. Rhea is conducting research on the characterization and application of Drosophila as a model for CHARGE syndrome. She was recently credited with her first publication in Human Molecular Genetics entitled

"Kismet/CHD7 regulates axon morphology, memory and locomotion in a Drosophila model of CHARGE syndrome." Most recently, she participated in the prestigious Amgen Scholars Summer Program in San Diego, CA. Rhea aspires to have a hands-on career that enables her to impact and interact with others through her scientific contributions and research.



Aja Carter has had a love for dinosaurs and paleontology from a very young age. She is currently pursuing her Bachelor of Science degree in Biology, specializing in Paleobiology at Drexel University. During the summer after her freshman year, Aja conducted research in synonymizing fossil collections at the Academy of Natural Sciences in Philadelphia. Aja will now be entering her second year at

Drexel. She plans to continue her education and obtain her Ph.D. in Paleobiology.



**Claudia Gutierrez** is a sophomore enrolled in an accelerated five year program from which she will obtain both her Bachelor of Science and Master of Science degrees in Biomedical Engineering at Drexel University. She is presently conducting research in mechanical alterations in endothelial cells in diabetic conditions. After the completion of her accelerated program, Claudia will attend medical school. When not in the lab, she can be

found teaching salsa classes as the president of Drexel's Salsa Dance Club.



Michline Brice completed a Bachelor of Arts degree in Biology from Cheyney University in 2006. In 2008, Michline completed a Master's degree in Biology from Delaware State University as an LSAMP Bridge to the Doctorate fellowship recipient. At present, she is pursuing a Ph.D. degree in Food Science and Technology at the

University of Maryland, Eastern Shore.



**Carolyne Ochieng** completed her Bachelor of Arts degree in Biology from Cheyney University in 2010. As an undergraduate, her research focused on antibody response to influenza A viruses. Carolyne's plans to attend graduate school in near future.



Gordon Taylor conducted research at the Los Alamos National lab in the summer of 2006. At Chevney, Gordon's research focused on the determination of a plant protein diet for the marine fish, Cobia (Rachycentron canadum). He completed a Bachelor of Arts degree in Chemistry from Cheyney University in 2009. After

graduation, Gordon worked at the Cheyney University Aquaculture Research and Education Center. Currently, he is pursuing a Master's degree in Aquaculture at the University of Arkansas, Pinebluff.



Shileen Bynum completed a Bachelor of Arts degree in Chemistry at Cheyney University in 2003. Afterwards she completed a post-baccalaurete program at the University of Pennsylvania. In 2008, as a recipient of the LSAMP Bridge to the Doctorate fellowship, matriculated to Temple University and completed an Masters's of Science degree in

Microbiology and Immunology in 2010. Currently, she is employed as a labortory technician at the University of Pennsylvania.



Brandon Harrison completed his Bachelor of Arts degree in Biology at Cheyney University in 2008. During his undergraduate study he Nanotechnolgy completed the certificate program at Pennsylvania State University. After graduation, he worked in U.S. Dept. of (USDA) Agriculture in a microbiology laboratory in Philadelphia. At present, he is

employed at IBM in Wappingers Fall, New York



Omar Melton graduated with a Bachelor of Arts degree in Chemistry and a Minor in Mathematics from Chevney University in 2011. As an undergraduate, Omar completed the Nanotechnology Certificate program at Pennsylvania State University at a nanomanufacturing facility during his undergraduate study and received an Associate of

Science degree in Nanotechnology.



Denis Madende graduated magna laude from Cheyney cum University with a Bachelor of Arts degree in Biology in 2010. He is currently a Master's candidate in Materials Engineering a Drexel University as a recipient of the Dept. of Education's Graduate Assistantships in Areas of National Need Fellowships in Renewable Energy Technologies and Infrastructure Networks

(GAANN-RETAIN).



**Paul Gwengi Anam** completed a Bachelor of Arts degree in Biology at Cheyney University in 2011. While he was an undergraduate student, he interned over the summer as a researcher with the Children's Hospital of Philadelphia (CHOP) with the Division of Oncology / Blood and Marrow Transplantation.



**Tyra Cooper** completed her Bachelor of Arts degree in biology at Cheyney University in 2008. After her degree completion, she worked in U.S. Fishery and Wild Life. Currently, Tara is working in U.S. Department of Agriculture (USDA).



Shawn Baylor is a senior in Biology at Cheyney University. He is currently conducting research in platelet adhesion on titanium and polyurethane biomaterials under sheer stress. He was a recipient of a 3<sup>rd</sup> place Excellence award in the Life / Biological category for his research presentation at the 14<sup>th</sup> Annual Philadelphia AMP

Research Symposium and Mentoring Conference in 2011.



**Bridget Parker** graduated in 2009 with a Bachelor of Arts degree in Biology from Cheyney University. While an undergraduate she attended summer research program at Wistar Institute. In 2009, she was awarded a HBCU STEM fellowship to enroll in a Master's program in Human Wellness and Performance / Biology at the University of Pittsburgh.



Nwakfor Ebelechukwu completed a Bachelor of Arts degree in Computer Science as the valedictorian of the class of 2011 at Cheyney University. While he was an undergraduate student, he conducted research on an analysis of BMI for untreated patients in a primary care facility at Thomas Jefferson University. He is now enrolled in a Master's program at

Norfolk State University.

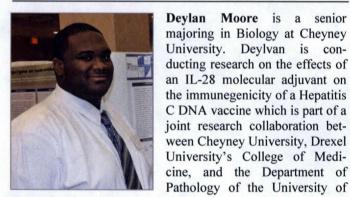


**Ryan Willis** was awarded Bachelor degrees in both Chemistry and Biology from Cheyney University. He also received a certification in nanotechnology from Pennsylvania State University. Ryan has taught Chemistry and Physics for the Philadelphia School System and has instructed a Physics course at Cheyney University. He is currently

pursuing an advanced degree in Biochemistry while working as an advisor and tutor at Cheyney University.



Monica Effi is a sophomore majoring in both Biology and Chemistry at Cheyney University. She is currently conducting research on the response of Camelina sativa to NaCl salinity. Monica was a recipient of a 2<sup>nd</sup> place Excellence award in the Life / Biological category for her research presentation at the 14th Annual Philadelphia AMP Research Symposium and Mentoring Conference in 2011.



Pennsylvania.



Philadelphia AMP Conference in 2011.

Lennan Boyd is currently a senior at Cheyney University majoring in Biology. Lennan's research focus is in the testing of IL21 cytokine as an adjuvant for a HIV-1 claude A/C consensus-based envelope DNA vaccine for use in South Africa. She was a recipient of a 1<sup>st</sup> place Excellence award in the Life / Biological category for his research presentation at the 14th Annual Research Symposium and Mentoring



Paul Lachaud, throughout his schooling, acquired a strong interest in chemistry, physics and mathematics. After completing high school at Central High School of Philadelphia, he is now completing a Bachelor of Science in Chemical Engineering at Drexel University in Philadelphia with a minor in Materials Science and Engineering. During the summer of 2011, Paul conducted research investigating

"Poly(3-hexylthophene) as an organic hole-conductor in extremely thin absorber photovoltaics."



Walter Hinds completed his undergraduate education at Cornell University in Biological Engineering. Upon completion of his degree, he was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship. In fall 2010, Walter enrolled as a Ph.D. student in Biomedical Engineering at Drexel University in Philadelphia, PA. Since then, he has successfully achieved his Ph.D.

candidacy and is looking to make novel and significant contributions to the field of neurobiology research, while contributing to public health by aiding in the discovery of cures for neurodegenerative diseases like Alzheimer's and Parkinson's. After spending a few years in industry, Walter would like be become a professor and faculty advisor for future generations of scientists and researchers.



**Ryan Rebozo** completed his undergraduate education at Rutgers University in New Jersey with a degree in Ecology and Natural Resources. Subsequently, he was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship. In fall 2010, Ryan enrolled as a Ph.D. student in Environmental Sciences at Drexel University. He is currently conducting research in the area of pollination

ecology in order to develop new conservation strategies for rare plants and insects.



Andrea Partridge graduated from Drexel University in 2008 with a Bachelor of Science degree in Biological Sciences. In 2010, Andrea was awarded the prestigious NSF Bridge to the Doctorate Graduate Fellowship that allowed her to enroll in the Master of Science program in Biomedical Science with a focus on Microbiology and Immunology. Andrea successfully completed several labora-

tory rotations during her first year at the end of which she transitioned into the Ph.D. program in Biomedical Science. Upon obtaining her doctorate, Andrea hopes to expand field of knowledge of HIV/AIDS therapy and research.



**Camilla Nix** completed her undergraduate education at Syracuse University in Upstate New York with a degree in Biomedical Engineering in 2010. Subsequently, she was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship and enrolled as a Ph.D. student at Drexel University in the School of Biomedical Engineering, Science and Health Systems. During her first year, Camilla

conducted research in the area of cell mechanics using a dielectrophoretic device. She hopes to pursue a career in research and development on treatment and diagnostic options for cancer and disease.



Quincy Brown, Ph.D. completed her undergraduate degree in Electrical Engineering at North Carolina A&T State University. After several years as a professional in the private sector, Quincy decided to go back to school for her graduate

degree. In 2005, she was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship and enrolled as a Ph.D. candidate Computer Science at Drexel University. In 2009, she successfully completed her Ph.D. studies. Currently, Dr. Brown is an Assistant Professor in the Computer Science department at Bowie State University.



**Dannielle Solomon-Figueroa** was awarded a Bachelor of Science degree in Biomedical Engineering from Tulane University in 2005. In 2006, she was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship to attend Drexel University. She is currently a PhD candidate in Biomedical Engineering

studying the effects of hyperglycemia on endothelial cell response to strain and extracellular matrix signaling. Dannielle hopes to complete her Ph.D. studies in 2012.



**Rafael Mulero** began his undergraduate career at Delaware Technical Community College, and later matriculated to Drexel University majoring in Mechanical Engineering. Rafael completed his Bachelor of Science degree in Mechanical Engineering in 2005, and was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship. He continued his studies as a Ph.D. candidate in Mecha-

nical Engineering and Mechanics. Rafael hopes to complete the requirements for his doctoral degree by June 2012. The focus of his graduate research is nanopore/micropore sensors for macromolecule and bacteria detection.



**Roberto Salomé** has always had an interest in computing. This led him to pursue Computer Engineering at Drexel University. He is also a member of the Pennoni Honors College at Drexel. Blending his interests in writing and computers, he completed his first co-op experience at Comcast Corporation as a technical writer. His subsequent internships were as a quality assurance analyst at Morgan, Lewis & Bockius

LLP and as an infrastructure engineer at CIGNA. After experiencing three very different workplaces, he soon found an interest that unified them all – digital security. Roberto's future plans are to pursue research in developing solutions to improve digital communication and network security.



Andrew Hyatt matriculated to Drexel in fall 2009 in the hope of making his dreams to become a medical doctor a reality. Andrew is a Biological Sciences major and a member of the Pennoni Honors College at Drexel University. In the summer after his freshman year, Andrew performed research on the "Design & Construction of a MicroRNA Inhibitor: A Tool to Investigate Alzheimer's Disease Patho-

genesis." Subsequent to this experience, Andrew completed his first cooperative education experience with Ethicon, Inc. of the Johnson & Johnson (J&J) family of companies as a Biosurgical R&D Intern. His experience was tremendously successful and he has since returned to J&J to complete his second co-op assignment in another area of the company. He is looking forward to enrolling in medical school in the future.



Kelly Lopez attended Drexel University as a Biology major and took an active role in student life. She was President of the Society of Hispanic Engineers, and a member of the Pennoni Honors College and Tribeta Biological Honors Society. After completing her undergraduate education, Kelly was accepted to Jefferson Medical College where she was awarded first place in the 2009 Alpha

Omega Alpha Honor Medical Society research presentation competition for her lecture on refugee health and tuberculosis screening in Philadelphia. After teaching for a few years as a teaching assistant in the Drexel Department of Biology instructing nursing students in Microbiology, she is currently enjoying her Family Medicine clerkship at Jefferson Dept. of Family and Community Medicine and wishes to pursue a career in a surgical specialty. Her anticipated graduation date is August, 2013.



Samuel Laurencin was awarded a Bachelor of Science degree in Chemical Engineering from Drexel University. In 2005, he was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship. Currently, he is enrolled as an M.D. / Ph.D. student in Chemical Engineering at Drexel and anticipates graduating in 2013. His research interests are biomaterials, drug delivery, biomere medicine

chanics and regenerative medicine.



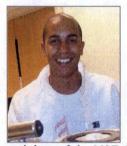
Non Yok received a Bachelor of Science degree in Electrical Engineering from Drexel University. In 2005, he was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship to continue his studies. In June 2011, Non received a Ph.D. in Electrical Engineering. His research focused on new approaches to improving organisms detection and gene

prediction in metagenomes. Currently, he is employed as an Adjunct Professor in Mathematics at Rowan State University.



Angel Lucena, an honored marine corp veteran, worked in industry for a number of years before attending Drexel University where he later received a Bachelor of Science degree in Biology. In 2005, he was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship to continue his studies. In June 2011,

Angel received a Ph.D. in Biological Sciences. His dissertation focused on examining the consequences of sPLA2 inhibition following traumatic brain injury (TBI). In support of the LSAMP program, Dr. Lucena is currently serving as an Adjunct Faculty/Lab Supervisor in the Department of Biology at Community College of Philadelphia until he returns to employment in industry.



David A. Delaine earned his BS degree in Electrical Engineering in 2005 from Northeastern University was awarded the prestigious NSF LSAMP Bridge to the Doctorate Graduate Fellowship to attend Drexel University, where he later received a Master's of Science degree in Electrical Engineering from Drexel University in 2007. As a

recipient of the NSF Graduate Research Fellowship, David is a Ph.D. candidate in Drexel's Department of Electrical and Computer Engineering. His current research includes the development of novel power generation techniques through power scavenging with Stirling Engines, and the electrical poling of polymers. David is an active member IEEE, the Society of Hispanic Professional Engineers (SHPE), the National Society of Black Engineers (NSBE), and the American Association of Blacks in Energy (AABE).

## **CHEYNEY UNIVERSITY OF PENNSYLVANIA**



**Ezekiel Crenshaw** completed a Bachelor of Arts degree in Biology from Cheyney University in 2010. While an undergraduate, he was a member of Cheyney University Keystone Honors Academy. He was also member of Beta Kappa Chi. As an LSAMP undergraduate he conducted research at the Wistar Institute as well as the Los Alamos

National Laboratory for two consecutive summers through funding from the Department of Energy. Mr. Crenshaw is presently attending Drexel University as a Ph.D. candidate in Biological Sciences as a 2010 LSAMP Bridge to the Doctorate Fellowship recipient. Ezekiel's area of research focuses on understanding amloid precursor protein through mRNA transport.



Sami Atif graduated with Bachelor of Arts degree in Mathematics from Cheyney University in 2004. As an undergraduate, was a member of Alpha Kappa Mu Honor Society. As an LSAMP Bridge to the Doctorate program participant, Sami received his MS degree in Applied Mathematics from Delaware State University (DSU) in 2009. Sami has

two publications, "1-Soliton solution of complex KdV equation in plasmas with power law nonlinearity and time dependent coefficients" in Applied Mathematics and Computation October 2010; and "Solitons in Relativistic Plasmas by He's Variational Principle" in Applied Physics Research November 2010. Presently, Sami is in the 5th year of his graduate study and anticipates receiving his doctoral degree in Applied Mathematics and Theoretical Physics from DSU in May 2012.



Anwar Atif completed a Bachelor of Arts degree in Computer Science in 2005 at Cheyney University. After graduation, Anwar worked as a high school mathematics teacher at the Harambee Institute in Philadelphia. In 2006, with funding from the LSAMP Bridge to the Doctorate program, he was able to continue on to graduate

study at Delaware State University where he is presently enrolled as a Ph.D. candidate in Applied Mathematics.



Michaeline Hebron graduated in 2008 from Cheyney University with a Bachelor of Arts degree in Biology. While she was an undergraduate, she completed research internships at the Wistar Institute and the Los Alamos National Laboratory through funding from the Department of Energy. In 2011, Michaeline was awarded an HBCU STEM

Fellowship to attend Georgetown University for the Masters of Science degree in Biochemistry and Molecular Biology.



Yaminah Watson completed her Bachelor of Arts degree in Chemistry in Cheyney University in 2011. As an undergraduate she conducted research on the investigation of inhibitory / homing receptors and adhesion molecules on impaired B Cells in aged individuals as compared to young. It is Yaminah's plans to attend graduate school in near future.



Michele Thompson completed a Bachelor of Arts degree in Biology from Cheyney University in 2010. Presently, she is pursuing a Master's degree in Aquaculture at the University of Arkansas, Pinebluff.



Antonette Todd-Atif completed her Bachelor of Arts degree in Biology from Cheyney University in 2004. As a recipient of the pretigious 2006 LSAMP Bridge to the Doctorate fellowship, she attended Delaware State University and completed an Master's of Science degree in Plant Science. After graduation, she worked as a Research Technician at

Delaware State University. At present, Antonette is a Ph.D. candidate in Plant and Soil Sciences at the University of Delaware.



Kimberly Lewis graduated in 2009 with Bachelor of Arts degree in Biology from Cheyney University. As of Fall 2011, Kimberly is a Masters candidate in Biology at Chatham University in Pittsburgh, PA.



Simone Waters is a senior majoring in Biology at Cheyney University. As an LSAMP scholar, she has conducted research in the area of electroporation and its role in the study of the human papillomavirus



**Brian Mason** is currently a biology major attending Cheyney University. He has conducted research at the Wistar Institute on the "Augmentation of Vaccine-induced CD8+ T cell Responses to Influenza A Virus Nucleoprotien in Young and Old Mice through Blockade of an Immuno-inhibitory pathway.



Charles Owens is a Biology major at Cheyney University. As an undergraduate, he is conducting research on zooplankton in relation to salinity and location.

# COMMUNITY COLLEGE OF PHILADELPHIA (CCP)



Marcella Stokes had shown her dedication to her country and her career through her successful completion of seven years of distinguished military service only to be followed by an Associate of Science degree in Engineering Science at the Community College of Philadelphia and a Bachelor of Science degree in Mechanical

Engineering from Drexel University. In her current position as Project Engineer with the General Services Administration of the United States Government in the Design and Construction Division, she provides innovative solutions to support the mission of the construction and effective, sustainable, and transparent development of the government building infrastructure.



Tamika Wilson is another dedicated student and professional. She graduated from the Community College of Philadelphia in 2005 with four Associate Degrees, including one in Mathematics and Engineering. She co-founded a chapter of the National Society of Black Engineers and received many awards for her

leadership, hard work and dedication. Tamika proceeded to immerse herself into a Chemical Engineering program at Drexel University and merged those skill into a Bachelor of Science degree in Commerce and Engineering. Tamika's research interest included: rheology, biosensors design and fabrication and viable pathogen detection and quantification. She is currently a Project Manager at Monnell Chemical Senses Institute and manages a variety of sensitive research projects that aim to improve the human condition.



**Kianna Richardson** graduated from Community College of Philadelphia (CCP) with an Associate of Science and an Associate of Arts in Culture, Science and Technology with a concentration in Nutrition in 2009. Additionally, while serving as president of the Phi Theta Kappa Honor Society at CCP, she also worked

for the BTL Foundation which is a charity organization in Delaware whose mission is to provide, health, job oriented education, and humanitarian services to the needy in the United States and India. After graduation, she matriculated to Drexel University and worked as an intern in the clinical nutrition department at the Children's Hospital of Philadelphia, where she had the opportunity of shadowing a dietitian and learning patient nutrition intervention strategies. In 2011, she graduated with a Bachelor of Science degree in Nutrition (Magna Cum Laude) from Drexel University. Kianna is presently a participant in the Sodexo Health Care Services New York /Philadelphia Metropolitan Dietetic Internship program and endeavors to take on leadership roles in the community and in nutrition organizations such as the American Dietetic Association.



Andro-Marc Pierre Louis earned an Associate of Science degree in both Mathematics and Computer Science before matriculating to Temple University in 2005. He later received a Bachelor of Science degree in Chemistry (Cum Laude) and completed the requirements to become a Certified Chemist. With support

from the LSAMP Bridge to the Doctorate program, Andro-Marc successfully matriculated to graduate study at Temple University and is currently working to complete his Ph.D. degree in Chemistry.



**Bolatito Ajayi** attended Community College of Philadelphia for one year to strengthen her academic profile before transferring to Cheyney University in 2004. She later attended Cheyney for two years and emerged with two Bachelor of Science degrees in Biology Chemistry. In 2006, as a recipient of the prestigious LSAMP Bridge to the

Doctorate fellowship, she was able to matriculate to graduate study at Delaware State University, where she completed a Master's of Science degree in Applied Chemistry in May 2010. Currently, Bolatito is employed as a Quality Control Laboratory Manager at NanoHorizons Inc.



Joseph Heard scrutinized data received from the heavens at Brookhaven National Laboratory (BNL) for three summers between 2006-2009. At BNL, Joseph worked in the Physics Lab collecting and analyzing data related to axions, hypothetical elements in space. A 2007 Community College of Philadelphia graduate, Joseph took his experi-

ence and skills to the University of Arizona in Fall 2007, where he majored in Mathematics and minored in Astrophysics. He later transferred to Syracuse University where he received a Bachelor of Science degree in Mathematics in May 2011. At present, Joseph is working as a Lab Assistant, Department of Physics at Florida A & M University, where he plans to continue his education and pursue a doctoral degree in Physics.



Alma Blassengale represents the best in scholarship discipline for besides achieving high grades in her academic career, she has a scholarly repertoire for continuously learning everything about science. Alma earned an Associates of Science degree in Chemistry in 2003, and matriculated to Temple University where she was later awarded a Bachelor of Science degree in Chemistry in 2006.

As a recipient of a 2006 LSAMP Bridge to the Doctorate fellowship, Alma continued her education at Delaware State University and was awarded a Master's of Science degree in Chemistry in 2008. Her research focused on the degradation of steroidal hormones in soil affected by various environmental factors. After graduation, Alma matriculated to Drexel University as a Ph.D. candidate in Mechanical Engineering. Due to unforeseen family circumstance, Alma had to take a leave of absence from her doctoral studies and is currently working as a laboratory assistant in the Department of Biology at CCP. She hopes to return to Drexel to complete her doctoral studies in the near future.



Adedotun Adebamiro attended Community College of Philadelphia and then transferred to La Salle University where he received a Bachelor of Science degree in Chemistry in 1999. He continued his studies at the University of Pittsburgh and was awarded a Ph.D. degree in Cell Biology and Molecular

Physiology in 2006 and an MD in 2008. His dissertation focused on serine protease regulation of the epithelial sodium channel. Currently, Adedotun is an internal medicine resident at Yale-New Haven

Hospital in New Haven, Connecticut.

#### **DELAWARE STATE UNIVERSITY**



James Poland received his BS degree in Chemistry at Delaware State University (DSU) and continued on to pursue a MS degree in Applied Chemistry, also at DSU through the Bridge to the Doctorate Cohort VII program. He is on track to complete his Master's by December 2011. James began his research in

Physical / Electrochemical analysis, then moved to Biochemistry, and is now doing research in the field of Polymer Chemistry. These vastly different research projects have helped shape him into a versatile chemist instead of one that focuses on one area. James states that he was able to really pursue his goals because of the support of programs like Historically Black College and University Undergraduate Participation (HBCU-UP) program, LSAMP, and the Bridge to Doctorate program. Currently, James is a PhD student at Fisk and Vanderbilt Universities in the field of Chemistry through a joint program.



Hillari Howard is currently a sophomore majoring in Environmental Science at Delaware State University. Hillari is conducting research in fluorescence in extremophiles, microorganisms that live in extreme and uncommon environments.



Martha Gwengi is a junior at Delaware State University majoring in the field of Mathematics. Martha is conducting research in the movements of polystyrene beads in contraceptive gels in order to investigate the protective characteristics of vaginal contraceptive gels against various pathogenic particles such as HIV viruses.



Jere' Hutson is currently a sophomore at Delaware State University majoring Animal Science / Pre-Veterinary Science. Currently, she is investigating ontogeny and phenotype of progesterone receptor positive cells in the rat perinatal lower rhombic lip.



**Briana Johnson** is a junior at Delaware State University majoring in Forensic Biology. I am on track to finish my Bachelor's degree in May of 2013. After graduation, she plans to attend graduate school and study Information Technology. My ultimate goal is to pursue a career in Computer Forensics.



**Denzil Roberts** began his educational career at Delaware State University with a BS degree in Physics and Pre-Engineering in 2003, and a MS degree in Physics in 2005. Denzil continued on to obtain his Ph.D. degree in Electrical and Computer Engineering from the University of Missouri-Columbia. Robert's Ph.D.

dissertation was titled "Gallium Arsenide-Based Quantum Cascade Lasers for Mid-Infrared Operation at 3-5pm Grown by Molecular Beam Epitaxy". Denzil served as an AMP tutor while an undergraduate at DSU for Algebra, Calculus and Physics I & II. Dr. Roberts currently serves as a faculty member of Engineering at the University of Missouri-Columbia.



**Rachell Garner** is currently a junior at Delaware State University double majoring in mathematics and math education. This summer Rachell was selected to participate in the AMP International Experience Summer 2011 study abroad trip to China where she conducted research in plant ecology. She

currently serves as the Treasurer of the Junior Class for the Student Government Association, 2011-2012. Rachell is an active student member of the AMP Program where she facilitates peer-led tutoring workshops in college algebra and trigonometry for her fellow DSU students.



**Renee Roberts** earned her Bachelor of Science degree in Biology from Delaware State University, and a Ph.D. degree in Molecular Microbiology and Immunology /Veterinary Pathobiology from the University of Missouri. It was in June 2006, during her first summer internship at UMBC when she

recognized the STEM fields as her true professional calling in life. Renee served as a peer mentor and tutor during her years at Delaware State University. At the moment, Renee is working as a Research Assistant at the University of Missouri-Columbia.



Adae Amoako earned his undergraduate degree in Biology and Chemistry from Delaware State University in May 2007. As an undergraduate, Adae participated in numerous research interships at the University of Pennsylvania Medical Center, Yale University's School of Medicine, and the Department of

Molecular Biology and Genetics at the University of Michigan. These internships allowed him to solidify his passion for clinical medicine and research. Mr. Amoako is currently in his fourth and final year at Ross University School of Medicine. He hopes to secure a position in Internal Medicine or Family Medicine residency where he can only not take care of patients, but also continue doing clinical research.



Mahlet Mersha earned her undergraduate degree in Biology from the University of Texas-San Antonio. She completed her Masters Degree in the Biological Sciences at Delaware State University through the LSAMP Bridge to the Doctorate Fellowship program. Her research focused on how the Dopamine autorecptor

DOP-2 interacts with GPA-14 to modulate C. elegans learning and behavior. Mahlet is fascinated by the human brain and how it controls everything within the body. Currently, Mahlet is a Ph.D. candidate in Neuroscience at Drexel University's College of Medicine.



Anthea Aikins is an alumnus of Delaware State University (DSU). She completed her doctoral studies from the Department of Molecular Microbiology and Immunology at the University of Missouri. During her matriculation at DSU, she was involved in the LSAMP program, as well as with the MARC

program. Anthea believes the mentorship and guidance she received also played an instrumental role in nurturing her interest in scientific research. Dr. Aikens is now at the New Jersey Medical School University Hospital, working as a Postdoctoral fellow conducting clinical and translational research at the Cancer Center in Newark, New Jersey. Her current research focuses on understanding the mechanisms of Leukemia, specifically, Chronic Myeloid Leukemia, also known as CML.



Justin Davis is a senior in engineering physics at Delaware State University. During his college career he has completed an internship with Disney World, as well as at DSU. Justin also contributed to the publication entitled "Development of an autofluorescence spectral database for the identification

and classification of microbial extremophiles" which was published in the SPIE Digital Library as a proceeding. After graduation, Justin plans to enroll in graduate school to pursue a Ph.D. degree in Physics.



Marissa Brady received her Bachelor of Science degree in Biotechnology from Delaware State University in May 2008. As an LSAMP Bridge to the Doctorate recipient, was able to continue her studies and later received a Master's of Science degree in Natural Resources in December 2011. Her research focused on combining telemetry and mark-

recapture methods to study the population dynamics of American eels in Delaware. Marisa plans to attend University of Miami as a Ph.D. candidate in Marine Biology and Fisheries in Fall 2012.



**Roderick King** is sophomore in majoring in Biology at Delaware State University (DSU). He has been awarded several scholarships including: the AMP Program, the Luna I. Mishoe Scholarship, the Aspire Scholarship, and scholarships from S.M.I.L.E and the Cancer Federation. He has also been recognized on Delaware

State University's President's List two semesters in a row for academic excellence. Through the help of the LSAMP International Experience Program, Roderick had the opportunity to travel with other DSU AMP students to China for six weeks during the summer of 2011 where he conducted research in ecology. Currently, he is an intern working in a neuro-genomics research lab studying splice variants in *Caenorhabditis elegan*.



Agyenim Amoako earned his Bachelor of Science degree in both Biology and Chemistry from Delaware State University (DSU) in May 2006. As an undergraduate, Agyenim was awarded the DSU Annual Outstanding Leadership Award, was the President of the Alpha Chi Honor Society, and was recognized on the President's List

for six semesters and the Dean's List for four semesters. He has research experience in the Department of Pharmacology and Cancer Biology from Duke University. He also served as a student researcher at the University School of Medicine in New Haven, Connecticut in the Department of Epidemiology and Public Health, as well as at the University of California, San Diego School of Medicine in the Department of Cardiology. Agyenim says that he has always loved science and is interested in researching how diseases affect the entire world. Dr. Amoako recently graduated from Ross University School of Medicine and is currently in the process of applying for a residency position.



Mollee Crampton attended Delaware Technical & Community College for her Associates Degree in Applied Science (Biotechnology). She continued on to earn her Bachelors of Science in Biology (Biotechnology track) at Delaware State University in May 2011. She completed an NSF internship, Research Experience

for Undergraduates (REU) in 2009, which confirmed her desire to conduct research in the biological sciences. At Delaware State University, she participated in a mentorship program designed to help incoming STEM and Agriculture freshmen to be stronger students and remain in their program, even through the difficult science classes. After graduation, as a 2011 LSAMP Bridge to the Doctorate fellowship recipient, Mollee is now enrolled as a Master's candidate in Molecular Biology and Genetics at the University of Delaware.



Adrianne Brown is a senior at Delaware State University majoring in Biology. As an LSAMP scholar she conducted research on the validation of 454 sequencing derived transcription factors in the common bean (Phaselous vulgaris L.)



Talaysha Lingham received a Bachelor of Science degree in Food and Nutrition Science from Delaware State University in 2010. As a recipient of the LSAMP Bridge to the Doctorate fellowship, is currently a Master's candidate in Food Science Microbiology. Her research is focused on\_the study of the antimicrobial activity from vinegar on foodborne

pathogen and bacteria species isolated from catfish.



**Darius Wheeler** was awarded a Bachelor of Science degree in Mathematics from Delaware State University in 2008. As a recipient of the LSAMP Bridge to the Doctorate fellowship, he was able to complete a Master's of Science in Applied Mathematics in May 2010. Currently, as a Ph D candidate in Applied

Darius is enrolled as a Ph.D. candidate in Applied Mathematics at Northwestern University.



Jennifer Hampton is an undergraduate student at Delaware State University majoring in Natural Resources / Concentration Fisheries Management. As an LSAMP scholar, she is Documenting Habitat Use and Residency of Adult Atlantic Horseshoe Crab (Limulus polyphemus) in Delaware Bay Through Passive Acoustic Telemetry.



**Franz Delima** knew he wanted to study STEM since he was a little kid running around his parent's farm in Haiti. He dreamed of becoming an Engineer. Franz received his Bachelor of Science degree in Physics from Delaware State University in December 2008. While an undergraduate student Franz was an active member of LSAMP. He also completed an internship with

AstraZenca Pharmaceuticals in 2006 and 2007. As an LSAMP Bridge to the Doctorate fellowship recipient, Franz completed his Master's of Science degree in Applied Optics in August 2011. He worked on the publication "A. Marcano O., F. Delima, Y. Markushin, and N. Melikechi, "Determination of linear and nonlinear absorption of metallic colloids using photothermal lens spectrometry," J. Opt. Soc. Am. B 28, 281 (2011). Currently, Franz is employed as a laser technician for Light Age, Inc.



**Ar'Quette Grant** was awarded a Bachelor of Science degree in Agriculture in 2009 at Delaware State University (DSU). As a recipient of a LSAMP Bridge to the Doctorate fellowship, she completed a Master's of Science degree in Food Sciences and successfully transitioned to Virginia Polytechnic Institute and State University as a Ph.D. candidate

in Food Sciences in Fall 2010. Ar'Quette attests that her matriculation through DSU and the LSAMP Program gave her the strength, endurance, and responsibility needed for her to complete her PhD and enter the scientific world as an expert in my field. Three of the four summers as an undergraduate student were spent in summer internships where she gained experience in various fields of study ranging from: molecular botanical research to field research working with sharks and eels. These experiences, mixed with classic classroom teaching, gave her a greater appreciation for STEM, and helped her to hone her research interests to the area of food science.



**Tiara D. Turner** received her Bachelor of Science degree in Mathematics from the University of Maryland Eastern Shore in December 2007. As a recipient of the LSAMP Bridge to the Doctorate fellowship, Tiara was able to matriculate to Delaware State University and complete a Master's of Science degree

in Applied Mathematics in December 2010. After completing the Master's program in Applied Mathematics at Delaware State University she received a fully funded scholarship from the Federal Department of Education Title III Program to continue her education at DSU as a Ph.D. candidate in Applied Mathematics. In 2010, Tiara co-authored a paper entitled "Detection of Periodic Motion of Visually Obscured Human Beings using UWB Radar" in the fourth International Conference on Environment and Engineering Geophysics. Although she is very proud of her accomplishments, Tiara attests that the LSAMP and the Bridge to the Doctorate Program gave her the support and structure she needed to succeed and for that she is very grateful.



**Maurice Smith** received a Bachelor of Science degree in Physics with an Emphasis in Engineering from Delaware State University in December 2008. As a recipient to the LSAMP Bridge to the Doctorate fellowship, he completed his Master's of Science degree in Optics in May 2011. He is currently employed by the Department

of Labor and Workforce Development's Division of Employer Accounts. His plan is to start his own business in the near future with government funding.



Alicia Revis Magnum completed her Bachelor of Science degree in Environmental Science from Delaware State University in 2005. As a recipient of the LSAMP Bridge to the Doctorate fellowship, she was able to complete her Master's of Science degree in Natural Sciences at DSU in 2009. Alicia is

presently employed as an Environmental Senior Technician at the North Carolina Division of Air Quality.



Tori Alexandra Owens earned her undergraduate degree from the University of California at Riverside in the Biological Sciences. As a recipient of the LSAMP Bridge to the Doctorate fellowship, she matriculated to Delaware State University, where she completed her Master's of Science degree in Biological Sciences in December 2011.

Tori received a 1<sup>st</sup> Place Excellence award at the 13th Annual Philadelphia AMP Research Symposium and Mentoring Conference for her research presentation on the differential glycan patterning of CXCR4 in neuroblastoma cell lines. Tori is now employed with Nemours Center for Childhood Cancer Research at A. I. duPont Hospital for Children as a Laboratory Research Technician. She plans to work for a year and will then apply to Medical Schools for 2012 and possible 2013 admissions.



**Isaac Basaldua** received his Bachelor of Science degree in Physics from Delaware State University (DSU) in May 2009. As a recipient of the LSAMP Bridge to the Doctorate fellowship, he was able to pursue graduate study at DSU. He is currently completing a Master's of Science in Applied Optics.



**Rochelle Young** was awarded a Bachelor of Science degree is Forensic Biology in 2009 from Delaware State University. As a recipient of the LSAMP Bridge to the Doctorate fellowship, she was able to complete a Master's degree in Biology at DSU in May 2011. Rochelle attests that when she stood up to defend her thesis, she had gained a level of confidence,

self-worth, and resilience that she has never seen in herself, but she knew she had earned with the support of LSAMP.



**Stephanie Nieves** is a Mathematics / Computer Science major at Delaware State University. As an LSAMP research scholar, she conducted research in the stochastic particle-based model of cell rearrangements.

## LINCOLN UNIVERSITY OF PENNSTLVANIA



James Arthur Cooper received his Bachelor of Science degree in Biology from Lincoln University, and his Ph.D. degree in Biomedical Science from Drexel University in December 2002. After graduation, Dr. Cooper conducted post-doctoral research at University of Pennsylvania, before accepting a tenure-track position at Rensselaer Polytechnic Institute as an

Assistant Professor in Biomedical Engineering. In Dr. Cooper's words, "The LSAMP program has shaped my career by providing funding to programs which have given me the time and attention to develop my maturity as a scientific researcher. I first came into contact with an LSAMP funded program at Lincoln University, PA which showed me the attention and devotion I would have to place on my studies in order to succeed. Since then, whenever I have had hard and stressful times in my studies or my research, I look back on the AMP programs which have influenced my career path and become motivated to succeed. I am thankful that I was a part of the LSAMP program and hope to continue to contribute to its legacy in helping minorities achieve their academic goals."



Shani Samuel received her Bachelor of Science degree in Chemistry from Lincoln University in May 2009. As an LSAMP Bridge to the Doctorate fellowship recipient, Shani was was able to matriculate as a Master's candidate in Chemistry at Delaware State University in the Spring 2010. Her current area of research focuses on the comparison of

whey protein encapsulated vitamins by homogenization and classical complex coacervation techniques.



**Rene Oats** received her Bachelor of Science degree in Physics from Lincoln University in 2005. As an LSAMP Bridge to the Doctorate recipient, she matriculated to Temple University, where she later received a Master's of Science degree in Civil Engineering in 2009. Rene is currently Ph.D. candidate in Structural Engineering at Michigan

Technological University with interests in product development and engineering research.



Norrisca Charles is a junior at Lincoln University majoring in Environmental Science. As an LSAMP scholar, she conducted research on alternative fuels, in particular, the investigation of ammonia borane hydrolysis at Duquesne University.



**Terrell Myers** is a junior at Lincoln University majoring in Biology. As an LSAMP scholar, he conducted research on the effects of mental stress on coronary blood flow in humans at Penn State Hershey Heart and Vascular Institute.



**Shavona Burton** is a sophomore majoring in Biology at Lincoln University. As an LSAMP scholar, she conducted research on the role of Connexin43 in the skeletal response to mechanical unloading at Penn State College of Medicine.



**Patrick Iheiirika** is a sophomore in Biology at Lincoln University. As an LSAMP scholar, he is participating in research in mitochondrial targeted triphenylphosphonium derivatives for the treatment of metastatic melanoma at the University of Iowa, Carver College of Medicine.



**Candice Lynch** is a junior at Lincoln University majoring in Chemistry. As an LSAMP research scholar she conducted a pilot study of a potential novel heterologous prime-boost cancer vaccine.



Nandima Koroma completed Bachelor of Science degrees in Mathematics and Mathematics Education at Lincoln University in 2009. As a recipient of the LSAMP Bridge to the Doctorate fellowship, Nandima was able to matriculate to Delaware State University where she is currently a Ph.D. candidate in Applied Mathematics.



**Krystaufeux Williams** was awarded a Bachelor of Science degree in Physics from Lincoln University and a Bachelor of Science degree in Mechanical Engineering from Drexel University in 2002 as part of the 3/2 dual degree articulation agreement between the participating institutions. As a 2003

LSAMP Bridge to the Doctorate fellowship recipient, he attended the University of Delaware, but later matriculated to Delaware State University and was awarded a Master's of Science degree in Physics. Upon graduation, Krystaufeux enrolled at Pennsylvania State University (Penn State) where he earned a Master's of Science degree in Materials Science and Engineering in December 2010. With support from the Naval Research Laboratory(NRL), Krystaufeux is currently continuing his studies as a doctoral student and has passed his Ph.D. qualifying examination at Penn State. He has also been guaranteed employment by NRL upon graduation.



Shakera Guess completed a Bachelor of Science degree in Chemistry and a Bachelor of Arts degree in Spanish in 2007 at Lincoln University. As a recipient of the LSAMP Bridge to the Doctorate fellowship, Shakera matriculated to Delaware State University where she later received a Master's of Science degree in Chemistry in May

2010. She is currently employed as a Laboratory Technician / Associate Scientist at Critical Path Services, LLC, a contract research organization that offers GLP-compliant laboratory analysis, toxicology consulting, and technical writing services to the pharmaceutical, crop protection, and chemical industries.



Eric Jamison II received Bachelor of Science degrees in Chemistry and Anthropology and a Minor in Mathematics in May 2006. As a recipient of the LSAMP Bridge to the Doctorate fellowship, Eric matriculated to Delaware State University where he later was

awarded a Master's of Science degree in Applied Chemistry. Currently, Eric is a Ph.D. candidate in Public and Community Health at the University of Maryland- College Park.

# **NEW JERSEY INSTITUTE OF TECHNOLOGY (NJIT)**



Jefferson Cuadra completed his Bachelor of Science degree in Mechanical Engineering at the New Jersey Institute of Technology. As a 2010 participant of the LSAMP Bridge to the Doctorate program, Jefferson is presently enrolled as a Ph.D. candidate in Mechanical Engineering at Drexel

University. His research area is focused on multiscale characterization of mechanical behavior of advanced composites via a data-driven modeling approach.



Shivon Boodhoo received her Bachelor of Science degree in Industrial Engineering from the New Jersey Institute of Technology. As a participant of the LSAMP Bridge to the Doctorate, she was able to attain a Master's of Science degree in Industrial Engineering / Engineering

Management from NJIT in 2006. After working in industry for a number of years, Shivon has returned to NJIT as an Undergraduate Advisor in the Department of Electrical and Computer Engineering, and is now enrolled as a Ph.D. candidate in Industrial Engineering. In December 2011 she passed her dissertation proposal and is on track to graduate in May 2012.



Marlena Brown received her Bachelor of Science in Biomedical Engineering from the New Jersey Institute of Technology in 2004. As an LSAMP Bridge to the Doctorate fellowship recipient, she matriculated to graduate study at NJIT and attained a Master's of Science degree in

Pharmaceutical Engineering / Engineering Management in 2006. Marlena is currently enrolled as a Ph.D. candidate in Biomedical Engineering at Rutgers University and is on track to complete her degree by May 2012. Her goal is to one day establish a non-profit healthcare community center that educates urban youth about healthcare issues, diseases, and preventive care.



Edward Musa received a Bachelor of Science degree in Computer Engineering with a Minor in Applied Mathematics from the New Jersey Institute of Technology in 2004. As a recipient of the LSAMP Bridge to the Doctorate fellowship, he continued his studies and was awarded a Master's of

Science degree in Information Systems in August 2006. After graduation, Edward worked a Lehman Brothers and later moved to Barclays Capital as an Assistant Vice President / Business Community Management Analyst. As of October 2010 he is working at Aegis Insurance Services in the IT area.



**David Diaz** completed his Bachelor of Science degree in Biomedical Engineering at the New Jersey Institute of Technology in 2007. As a 2010 participant of the LSAMP Bridge to the Doctorate program, Jefferson is presently enrolled as a Ph.D. candidate in Biomedical Engineering at Drexel University.

His research area is focused on the assessment of wound healing by non-contact NIR spectroscopy.



Aniel Padrino completed his Bachelor of Science degree in Mechanical Engineering at the New Jersey Institute of Technology in 2010. Aniel was able to continue his studies as an LSAMP Bridge to the Doctorate fellowship recipient and is presently enrolled as a Ph.D. candidate in Mechanical Engi-

neering at Drexel University. His research area is focused on myocyte cytoskeletal structure changes on native and glycated collagen.



Jennifer Dorn received her Bachelor of Science degree in Computer Science Summa Cum Laude from the New Jersey Institute of Technology in 2004. As a recipient of the LSAMP Bridge to the Doctorate fellowship, Jennifer was able to complete a Master's of Science degree in

Information Systems / Engineering Management in 2006 with a 4.00 GPA. After graduating, Jennifer was employed by Lockheed Martin where she entered the Information Systems Leadership Development program.



Glendon Scott is a senior in Biomedical / Electrical Engineering at the New Jersey Institute of Technology. His current research focuses on centralized versus distributed motor learning in preprogrammed controlled oculomotor system, an analysis of adaption. This study tests the hypothesis that if

someone has a strong ability to adapt one oculomotor system, then they will also have a strong ability to adapt another oculomotor system and vice versa.



Jay Vargas is a junior in Electrical Engineering at the New Jersey Institute of Technology. His current research focuses on the modeling of magnetic-field-assisted assembly of semiconductor devices. His research project received a 1<sup>st</sup> Place Excellence award in the Engineering Category at the 14<sup>th</sup> Annual

Philadelphia AMP Research Symposium and Mentoring Conference in October 2011.



**Michael Williams** is a junior in Electrical Engineering at the New Jersey Institute of Technology. His current research focuses on automatic image orientation detection with low-cost sensors.



Angel Royer received a Bachelor of Science degree in Information Systems through the joint program between Rutgers University and the New Jersey Institute of Technology (NJIT) in 2004. As a recipient of the LSAMP Bridge to the Doctorate fellowship, she was able to continue her education at NJIT and complete

a Master's of Science degree in Information Systems in 2006. She is currently employed as a Software Engineer at IBM in Lexington, Massachusetts.



Kens Josias received a Bachelor of Science degree in Chemical Engineering from the New Jersey Institute of Technology (NJIT) in 2004. As a recipient of the LSAMP Bridge to the Doctorate fellowship, he was able to continue his studies at NJIT and was later awarded a Master's of Science degree in

Chemical Engineering in 2006. After graduation, Kens was employed by as an engineer for the United States Army at Fort Monmouth. As of 2009, he has been working at Dupont Corporation.

## **TEMPLE UNIVERSITY**



Jennifer Bullock is a senior in Mechanical Engineering at Temple University. Jennifer received a 2011 Temple LSAMP research fellowship to work with Dr. Judy Zhang to study "Hetero-aggregation of Oxide Particles and the Impact on the Oxide Reactivity". Former President of the Society of Women Engineers (SWE),

Jennifer is very interested in attending graduate school for chemical engineering.



Virginia Kocieda received her Bachelor of Science degree in Biology from Temple University in 2007. Through her participation in the LSAMP Bridge to the Doctorate program, Virginia was able to enroll as a Ph.D. candidate in Microbiology and Immunology at Temple. In 2010, she served as Vice President of Temple's

Graduate Student Association. Currently, she is continuing her doctoral study as a National Institute of Health (NIH) Training grant recipient. Virginia desires to pursue a career in higher education and research where she wants to help "train the next generation of scientists."



Andro-Marc Pierre-Louis completed his Bachelor of Science degree in Chemistry at Temple University in 2007. Through participation in the LSAMP Bridge to the Doctorate program, Andro-Marc was able to transition to graduate study. Currently, he is enrolled as a Ph.D.

candidate in Chemistry at Temple University and is conducting research on "Cavity Ring-Down Spectroscopy (CRDS) with Theory and Applications of the Technique." His desire is to pursue a career in academic or industrial research in materials science chemistry.



Mark Calloway is a senior in Mechanical Engineering at Temple University. Mark has been a student leader in STEM since his arrival on campus. His professional area of interest is in renewable and alternative energy, and he expects to join a progressive firm committed to urban sustainability.



Abosede Salewa Ogunmefun is a senior in Engineering Technology at Temple University. Salewa worked on the LSAMP sponsored website development for the regional Mathematics, Engineering & Science Achievement (MESA) initiative to promote STEM achievement among

minority middle and high school students. She is very interested in pursuing her advanced degrees in environmental engineering.



**Mbalu Forneh-Delo** is a junior in Mechanical Engineering at Temple University. Mbalu has served in a number of the National Society of Black Engineers (NSBE) leadership positions, as Secretary and incoming Vice President. She received a 2011 Temple AMP research fellowship to study "Engaging and Motivating

Students in an Engineering Enrichment Environment", part of an on-going research protocol into diversifying the engineering pipeline. Mbalu plans to work in weapons design for the U.S. Navy.



Eric Francis-Wright is a senior in Civil Engineering at Temple University. Eric is an active student leader through his fraternity, support of the NSBE's pre-college initiative (PCI), and role as a peer mentor for Temple's GEARUP initiative. He recently worked on a research study entitled "Polymeric Solvents for

the Removal of Emerging Contaminants", and is very interested in additional research opportunities through the LSAMP Bridge to the Doctorate program.



William Maignan was awarded a Bachelor of Science degree in Electrical Engineering from Temple University in May 2011. As an undergraduate, William served as a mentor/peer coach for the GEARUP program. In Fall 2011, as a recipient of an LSAMP Bridge to the Doctorate fellowship. he was able to successfully matriculate the to

University of Delaware as a Master's candidate in Electrical Engineering.



**Romaric A. Nsidze** is a junior in Electrical Engineering at Temple University. Romaric serves as a 2011-2012 AMP Ambassador. He is responsible for outreach, information sharing and recruiting diverse STEM students to participate in LSAMP workshops, seminars and community service events. Romaric organized the

first AMP International STEM & Entrepreneurship workshop with the Fox School of Business. A native of Cameroon, with a 3.75 GPA, Romaric is exploring opportunities in light rail transportation here and abroad.



Ighiwiyisi "Michaela" Amadasu is a iunior in **Biophysics** at Temple University. Michaela serves as a 2011-2012 AMP Ambassador. In addition to her service with LSAMP, she is a leader in a number of STEM related student activities on Temple's Health Sciences Campus, including serving as a mentor in the STEP-UP pre-med program. organize Temple's MESA biomedical

summer camp, working in partnership with the United States Navy to expose minority middle and high school students to research on health disparities.



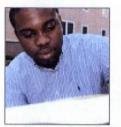
Gene Council is a senior in Electrical Engineering at Temple University. Gene served on the National Society of Black Engineers (NSBE) Region 2 Board as the Danger Zone coordinator for the Greater Philadelphia Region. She received a 2011 Temple LSAMP research fellowship to support her study

"Educating with Spatial Augmented Reality." Gene is also the incoming President of the Temple NSBE chapter.



Kenneth Carter is a senior in Mechanical Engineering at Temple University's College of Engineering. Kenny served as a GEARUP STEM counselor, as well as Membership Chair for Temple's award winning mid-size National Society of Black Engineers

(NSBE) chapter, which received "Chapter of the Year" from National NSBE in 2010 and 2011. Kenny is currently pursuing his Master of Science in Mechanical Engineering at Drexel University with support from the Greater Philadelphia LSAMP.



Nana Yaw A. Essuman is a senior in Information Technology at Temple University's College of Science & Technology. Nana helped develop Temple's LSAMP-maintained MESA website. He is an emerging expert in web and mobile application development and plans to continue in

the field of IT, systems and entrepreneurship.



**Uduak Udoeyo** is a junior in Biology at Temple University's College of Science & Technology. Uduak received a 1<sup>st</sup> Place award for research presentation entitled "*Titanium dioxide doped with palladium nanoparticles for sensing hydrazine*" at the 2011 Temple Undergraduate Research Symposium. She is also a Minority Access to

Research Careers 2011 scholarship recipient.



Alexander Gonzales is a junior in Mathematics and Spanish at Temple University's College of Science & Technology. Alexander is also a recipient of a 2011 LSAMP Award for academic excellence and a member of Temple's Honors program. He was also selected in 2011 to be an Honors Peer Coordinator.



**Enoch Kotei** received his Bachelor of Science degree in Biology from Temple University. As a 2007 LSAMP Bridge to the Doctorate fellowship recipient, Enoch was able to successfully matriculate to graduate study and was subsequently awarded a Master's of Science degree

in Biology in 2009 from Temple University. His research focused on upregulated expression of histone deacetylase (HDAC)-related corepressor mSin3A in the presence of hepatitis B x antigen. Presently, Enoch is pursuing an M.D. degree at the University of Illinois, Chicago, with an interest in academic medicine and research.



Amaliris Gonzalez received a Bachelor of Science degree in Biology from Temple University in 2007. With support from the LSAMP Bridge to the Doctorate program, she was able to continue her studies at Temple as a Master's candidate in Biology. In 2010, Amaliris transferred to doctoral

study has a Ph.D. candidate in Biology. She plans to pursue a career in higher education and research.



Justin Griggs completed his Bachelor of Science degree in Mathematics at University of California, Santa Cruz in 2007. As an LSAMP Bridge to the Doctorate fellowship recipient, he successfully matriculated to Temple University and later was awarded a Master's of

Science degree in Mathematics in 2010. Justin is presently enrolled as a Ph.D. candidate in Materials Engineering at Drexel University.



Nejea Davis was awarded her Bachelor of Science degree in Chemistry / Biochemistry from Temple University in 2007. As an LSAMP Bridge to the Doctorate fellowship recipient, she was able to continue her studies, and subsequently was able to attain a Master's of Science degree in

Analytical Chemistry from Temple University in 2010. Nejea is first author on publications in the Journal of Analytical Chemistry and the Journal of Chromatography. Her career goals are teaching and research at a university including "direct, international collaborative research benefiting developing nations."



James Lunden completed his Bachelor of Science degree in Biology at Temple University in 2007. With support from the LSAMP Bridge to the Doctorate program, he was able to continue his studies as a Ph.D. candidate in Biology at Temple University. He is interested in the mechanisms of coral calcification

and potential impacts of ocean acidification on cold-water coral communities. In 2009 and 2010, James was an instructor at Temple's ExxonMobil Bernard Harris Summer Science Camp serving middle school students from groups historically underserved and underrepresented in STEM fields.

# **UNIVERSITY OF DELAWARE (UD)**



Joanna Adadevoh is a senior Chemical Engineering major at the University of Delaware (UD). She has received numerous scholarships during her time at UD and is an active member of the RISE/LSAMP Program. Joanna expects to pursue a Ph.D. in Chemical Engineering. Her research is

on modeling the effects of ammonia on the glycosylation patterns of monoclonal antibodies. It is an important research topic because it has to do with ensuring the safety and efficacy of therapeutic drugs to consumers. Joanna is also the 2011-2012 Co-President of the UD chapter of the National Society of Black Engineers, a member of the UD Gospel Choir and the Delaware African Student Association.



Ariel Roach graduated in 2011 with a Bachelor's of Mechanical Engineering degree and a minor in Biomedical Engineering from the University of Delaware. Ariel was a RISE/LSAMP Program participant, a McNair Scholar, on the Dean's List numerous times and a UD Merit Scholarship

Recipient. Ariel was awarded 1<sup>st</sup> place in the Biological Sciences category of the 2010 Philadelphia LSAMP Research Symposium and Mentoring Conference. Ariel has studied abroad in Melbourne and Tasmania, Australia, and was the President of the NSBE UD chapter for two years, as well as being involved in many other student organizations. Ariel is an Associate Engineer at Merck & Co. and will be attending Drexel University in spring 2012 to pursue a Master's Degree in Engineering Management.



**Bianca Morales** is a senior at the University of Delaware majoring in Environmental Engineering with a concentration in Biotechnology and minors in Chemistry and Economics. She has received RISE Program/LSAMP scholarships. She has always had a love for math and science but knew it was what she

wanted to pursue after studying abroad in Grenoble, France the winter of her sophomore year of college. She plans on staying at UD for one extra year to take more classes and hopes to get a full-time job after graduation and eventually get an MBA.



**Robert Christian Paul** is a junior Civil Engineering major at the University of Delaware. He has been interested in techniques and structures from a young age. Christian (as he is known) has worked as a research assistant at UD performing work on the tear film of the

eye. Christian has been an active participant of the RISE/AMP Program and hopes to pursue a Master's Degree in Civil Engineering after graduating from UD.



**Daniel Baumzweig** is a junior, Mechanical Engineering major at the University of Delaware. At UD Dan is a participant of the RISE/LSAMP Program. The things he has learned at UD, as well as through the RISE/AMP program have helped him attain an engineering internship this past summer at a company

that manufactures a variety of fluid valves. He has put to use many ideas he learned in his classes while learning new things as well. He believes he would not be where he is today without the UD RISE/LSAMP Program.



Kevin Sadeghipour is a senior Mechanical Engineering major and Sustainable Energy Technology minor at the University of Delaware. Currently, Kevin is performing research at UD in thermo-chemical solar hydrogen production. This research involves the

development of a mechanical system which sustainably produces hydrogen gas using concentrated solar energy, zinc oxide powder, and water. He is also testing the condition and handling of zinc oxide powder to be used in a future powder handling publication. Kevin is an active participant in the RISE/LSAMP Program and believes that programs such as RISE/LSAMP are necessary to continuously offer support in many different forms to students pursing degrees in STEM fields. Kevin is also an officer of the UD Society of Hispanic Professional Engineers (SHPE) chapter.



**Marcus Whitchett** is a junior studying Mechanical Engineering at the University of Delaware. This past summer, he interned at a municipality in his town. It was there that he worked with a surveying crew, recording elevations and gradients to be recorded for the replacement of new roads. He is

an active member of the National Society of Black Engineers and currently holds the position of co-finance chair in his respective chapter at the University of Delaware. Marcus is also a scholarship recipient and active participant of the RISE/LSAMP Program.



Mark Oteiza is a senior, Mechanical Engineering major with minors in Mathematics and Economics at the University of Delaware. Mark conducts research on ultrasound micro-bubbles and is writing a thesis on shape optimization. He has contributed three years of service to the U.S. Navy as a student, was a part

of the SEAP program before university, and has been a co-op in the SCEP program since, working at the Naval Surface Warfare Center, Dahlgren Division. Having taken a half dozen graduate courses since his sophomore year and given his affinity towards research, Mark plans on pursuing a doctorate in his field after graduation.



Melynda Schreiber graduated from the University of Delaware with a degree in Mechanical Engineering and a minor in Biomedical Engineering in January, 2011. Under the advisement of Jill Higginson, she was able to research the brain signals (EEG) in reaching tasks.

On stroke rehabilitation, Melynda worked in the Biomedical Rehabilitation Partnership (BRP) on functional electrical stimulation of dorsi flexors and plantar flexors. After research opportunities in physics, neuroscience, rehabilitation engineering and physical therapy, she was able to define some of her long and short term goals. As a 2011 LSAMP Bridge to the Doctorate fellowship recipient, Melynda is currently a Master's candidate in Biomechanics and Movement Science at UD. With the guidance of the LSAMP programs, she plans to continue her education and pursue a doctorate degree related to a STEM field.



Myles Powell is a senior, majoring in Civil Engineering at the University of Delaware. He has been a part of the RISE/LSAMP Program for slightly more than three years. A lot of the inspiration to continue with his field of study has come from the RISE/LSAMP Program. Some of his college highlights include

being on the Dean's List and a construction management internship this past summer. Myles is a RISE/LSAMP Program scholarship recipient, he serves as an officer in the National Society of Black Engineers (NSBE) UD chapter and as a Career Ambassador for the University's Bank of America Career Services Center.



**Sharnita James** is a junior majoring in Mechanical Engineering at the University of Delaware. This past summer, Sharnita had the opportunity to encourage younger generations to pursue a career in engineering. She was in charge of a college readiness session,

which educated 14 and 15 year olds on anything related to college (applying to, choosing a major, campus life etc.). She organized lessons that explored the different fields of engineering. Sharnita is a RISE/LSAMP Program scholarship recipient and an officer in the National Society of Black Engineers (NSBE) UD NSBE chapter.



Matthew Wegryn is a junior, Mechanical Engineering major at the University of Delaware. After experiencing multiple types of engineering through classes and having an internship with Grotto Engineering Associates, he realized that Mechanical Engineer fits him very well.

In the future Matt plans on continuing his education to the graduate level. Matt is an active participant in the RISE/LSAMP Program and a scholarship recipient.



**Tayler Wennick** is a junior, Civil Engineering major at the University of Delaware. According to Tayler, RISE/ LSAMP has helped her to achieve the highest level of academic standards possible. She was named a Latino Student of Distinction, received numerous scholarships, and been on the Dean's List She has also been able to take part in

every semester. She has also been able to take part in research. Tayler is currently working on Non-Destructive Testing techniques with Professor Thomas Schumacher. She is also a member of the American Society of Civil Engineers and the Society of Women Engineers. After college, Tayler plans to attend graduate school.



**Etambuyu Akapelwa** is a junior at the University of Delaware pursuing a Bachelor of Science degree in Civil Engineering. Not only does she believe in encouraging minorities to take an interest in obtaining degrees in Science, Technology, Engineering and Math, but she also tries to serve as a positive example to promote retention within these fields. Since joining

RISE/LSAMP, she has received an award for Outstanding Achievement in French and continues to be an active student on campus who enjoys volunteering her time to RISE/LSAMP when asked. She has also served on the Executive Board of the National Society of Black Engineers two years in a row, previously as Fund-raising Chair and currently as the chapter Treasurer.



Nicolette Grannum is a sophomore, Mechanical Engineering major at the University of Delaware with a minor in Mathematics. Nicolette hopes to intern over the spring to get a hands-on experience in the field of engineering. The RISE/LSAMP Program is helping her meet Nicolette is a RISE/LSAMP scholarship

her future goals. recipient.



Marlyse Williams-White received a Bachelor of Environmental Engineering and a Minor in Civil Engineering from the University of Delaware in May 2004. As a recipient of the LSAMP Bridge to the Doctorate fellowship, she was able to continue her studies at UD and attained a Master's of Science degree in

Environmental Engineering in 2006. She later matriculated to Pennsylvania State University and earned a Ph.D. degree in Agricultural Engineering in 2010. Currently, Marylse is serving as an Officer in the U.S. Air Force.

### **UNIVERSITY OF PENNSYLVANIA (PENN)**



Jamol Pender is currently a Ph.D. candidate in Operations Research and Financial Engineering and president of the Wesley L. Harris Scientific Society at Princeton University. As a Penn LSAMP scholar, through the submatriculation program, he received a BSE in Electrical Engineering with a Minor in Mathematics in 2007, and a

MSE in Systems Engineering in 2008. He is currently researching queueing theory inspired by problems in communication centers.



**Raina Wallace** is currently a medical student at Mount Sinai School of Medicine of New York University. As a Penn LSAMP scholar, she received a BAS in Biomedical Applied Science in 2008, and served as president of the University of Pennsylvania Chapter of the National Society of Black Engineers (NSBE). As a participant of the LSAMP

undergraduate research program, Raina conducted research in neurology at the Children's Hospital of Philadelphia and coauthored a paper entitled "The Role of Transcription Factors Cyclic-AMP Responsive Element Modulator (CREM) and Inducible Cyclic-AMP Early Repressor (ICER) in Epileptogenesis" which was published in *Neuroscience 2008*. Through the Minorities in International Research Training program, Raina also conducted research in pathology at the Dunn School of Pathology at Oxford University in 2006.



**Charlotte Rivera** is a senior in Bioengineering at the University of Pennsylvania. As a Penn LSAMP scholar, she serves as the president of the University of Pennsylvania Chapter of the Society of Hispanic Professional Engineers (SHPE) and is presently conducting research in vibrotactile and auditory feedback for robotic

minimally invasive surgery.



Lauren Frazier is currently a Master's student in Computer Science at the University of Pennsylvania. As an undergraduate LSAMP scholar, she conducted research and coauthored the paper "Fault Detection in Partially Connected Networks". The paper received 1<sup>st</sup> Place at the 13<sup>th</sup> Annual Philadelphia AMP Research Symposium and Mentoring

Conference, 1<sup>st</sup> Place at the Einsteins in the City International Conference, 1<sup>st</sup> Place at the National Society of Black Engineers (NSBE) Regional Conference, and 2<sup>nd</sup> Place at the NSBE National Convention. In her spare time, Lauren enjoys video games and performing Shakespeare on campus.



Elana Cooper received her Bachelor of Science in Bioengineering from the University of Pennsylvania in 2009. She has taken charge of her career aspirations, and during and after attending Penn, she exemplified herself by participating in a series of the annual LSAMP Research Symposia and won first and second

prizes on at least three occasions. Her skill level continued to grow and be enhanced as she studied abroad at the Hong Kong Polytechnic University in China. The opportunity to implement research in lower limb biomechanics with professors at the HKPU clinics helped and influenced diagnosis and treatment protocol with new designs and manufacturing processes. Her experience in research at AI DuPont Hospital for Children in diagnostic electromyography on Cerebral Palsy patients and later research at the City College of New York incorporating principles of cell/microbiology, materials science and mechanical engineering supporting the development of living tissue surrogates for connective tissue restoration, have given her a perspective and background to advance and become a leader in the area of biomedical science and engineering. She was requested by her undergraduate professor, who moved to City College of New York, to come and work on his research and finish her Ph.D. Elana is currently enrolled in the Ph.D. Program at CUNY researching: "Decellularization of the Nucleus Pulposus to develop ECM/Hydrogel Constructs for Intervertebral Disc Repair". She anticipates completing her Ph.D. in 2014. Elana demonstrates the impact of undergraduate research as catalysis for graduate success.



Yonas Solomon is a junior majoring in Computer Science at the University of Pennsylvania. As an LSAMP scholar, he is conducting research on sentiment analysis of online social media. Yonas received a 1st Place -Excellence award in the Mathematics 1 Computational

Sciences at the 14<sup>th</sup> Annual Philadelphia AMP Research Symposium and Mentoring Conference in October 2011.



Mehdi Charfi is a Junior majoring in Systems Engineering at the University of Pennsylvania. As an LSAMP scholar, he is conducting research on cross-dock modeling and analysis.



**Norma Brown** is a Junior majoring in Bioengineering at the University of Pennsylvania. As an LSAMP scholar, she is presently conducting research on nanoparticles and B7-H4 superparamagnetic iron-oxide nanoparticles target cancerexpressing protein B7H4.