

The

Link

Fall 2010/Spring 2011



Guiding and sponsoring minority students in Science, Technology, Engineering, and Mathematics since 1995.



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Greetings from the Principal Investigator

Warmest Greetings from the OK-LSAMP program! I have felt privileged to have the opportunity to work with this amazing program for the past year. I hope my association with LSAMP continues for many years to come.

The operative word is indeed “amazing” as you will find this word in this document describing many of the aspects of the OK-LSAMP program. The National Science Foundation has provided many opportunities to under-represented minority groups in Science, Technology, Engineering, and Mathematics (STEM) fields in Oklahoma through this program, and we have taken full advantage of these opportunities. My wonderful staff and I enjoy sharing the many success stories with you in the pages of this newsletter.

-Mark E. Payton, Ph.D.



Save the Date!

The **OK-LSAMP 17th Annual Research Symposium** will be held on **Saturday, October 1, 2011**, at Oklahoma State University. All OK-LSAMP Scholars are required to attend—those who have participated in research projects, are required to present. Other LSAMP, McNair, and Native Americans in Biological Sciences (NABS) Scholars from across the nation are also invited to present. Anyone interested is encouraged to attend. More information and online registration will be available on the OK-LSAMP website.



Tyrone B. Hayes, Ph. D., will provide the keynote address for the **17th Annual Research Symposium**. Dr. Hayes is a biologist at the University of California-Berkeley where he is a Professor in the Department of Integrative Biology. He is perhaps best known for his work on the effects of atrazine on frogs, causing demasculinization in Northern Leopard Frogs. Dr. Hayes has been featured as an Emerging Explorer by National Geographic and there are a number of videos on YouTube. Check them out and mark October 1st on your calendar!

Amazing People

OK-LSAMP Scholars will be traveling to distances near and far for summer research internships and graduate school. Some of those include: (SI=summer internship; GS=graduate school)

Brandi Andrews, OSU, SI—ExxonMobil
Shaquita Banks, LU, GS—OU Health Sciences Center, Neuroscience Department
Sheila Baradaran, OU, SI—Holly Corporation, Tulsa, OK
Justina Bradley, LU, SI—Tuskegee University
Gabrielle Brown, OSU, SI—Lockheed Martin
Wilmon Brown, III, OSU, SI—Orthopedic Center, Tulsa, OK
Nicole Bryant, OSU, SI—OSU; GS—OSU Botany Department
Cassandra Camp, OSU, SI—Brookhaven National Lab, FaST Program
Kenna Chaffin, SEOSU, SI—Native American Research Center for Health Program at OU HSC
Gerardo Conanan, Jr., OU, SI—Schlumberger in Sugar Land, TX; GS—OU
Gregory Cook, CU, SI—OK IDeA Network for Biomedical Research Excellence Program
Kayla Davis, OSU, SI—Johns Hopkins University Bio Research Experience for Undergraduates
Zachary Dunn, OU, SI—Boeing Electromagnetic Effects Division, Oklahoma City, OK; GS—OU
Ryan Edwards, OU, SI—Goldman Sachs
Tiffany Evans, TU, SI—ConocoPhillips, Bartlesville, OK
J. Connor Ferguson, OSU, GS—University of Nebraska
Jeremy Hall, OSU, SI—Nomac Drilling, El Reno, OK

(Continued on page 5)

Amazing People

Dawn Kennedy, NSU biology senior, has been selected as an **Outstanding Senior**. Dawn is from Ochelata and a member of Alpha Chi and Rho Theta Sigma Honor Sororities as well as the Sigma Sigma Sigma Sorority. Her research interests include microbiology, immunology, and neuroscience. After graduation, Dawn plans to participate in the Graduate Program in Biomedical Sciences (GPiBs) Ph.D. program at the University of Oklahoma Health Sciences Center (OU HSC).



In Summer 2010, **Cassandra Camp**, OSU biology senior, participated in the **Native American and Pacific Islander Research Experience (NAPIRE)** program sponsored by the Organization for Tropical Studies (OTS). This is what Cassandra had to say about her experiences:

Q: What scared you the most about your first out-of-country experience?

A: The scariest thing about going out of the country over a long period of time for the first time was being so far away from family and missing out on the good as well as not being there for the bad.

Q: What helped to ease your nervousness?

A: My faith in God and the endless support from my family.

Q: Share three things you liked best about the experience.

- A:**
1. Being a part of the lives of the Ngobe-Bugle people located in La Casona, Costa Rica.
 2. My research because it will be used to improve the health of the Ngobe-Bugle community.
 3. Networking and meeting so many beautiful people.

Q: What would you say to someone who is hesitant to apply for the NAPIRE program?

A: Do not miss out on a life humbling experience that God has planned for you because it is outside of your comfort zone. Behold and trust that everything happens for a reason. Walk by faith not by sight. The NAPIRE program offers an amazing opportunity that will make you grow emotionally, physically, and spiritually.

Q: What words of advice do you have for current and future scholars?

A: Take advantage of every opportunity given to you even if it is negative.



Pictured: Top—Cassandra in the Las Cruces Rain Forest; Bottom Left—pictures of Cassandra's NAPIRE experience including the Wilson Botanical Gardens in the middle of the Las Cruces Rain Forest and cultural trips to the Brunka villages; Bottom Right—Wendy Townsend, NAPIRE Coordinator with Cassandra.



Amazing People

Courtney Garcia, SWOSU senior, participated in a 2010 Harvard summer research project and was selected to represent SWOSU at the 2011 Oklahoma Research Day at the Capitol, March 31, 2011. Her poster on “Development in Potential Anti-HIV & Antimetastatic Drugs: C-Symmetric Tris-Linked Bridged Tetraazamacrocycles as Potential CXCR4 Antagonists” was awarded the grand prize for best presentation. In addition, she was chosen as one of 74 out of 700 national nominees to attend the Council on Undergraduate Research (CUR) Posters on the Hill in Washington, D. C., April 13, 2011. This summer, Courtney will participate in an International Research Experience for Undergraduates (iREU). During the 10-week program funded by NSF through Bucknell University, Courtney will be conducting marine chemistry research in Cadiz, Spain. *Courtney is pictured receiving her Oklahoma Research Day at the Capitol award from Glenn Johnson, Oklahoma State Regents for Higher Education Chancellor.*



Eric Butson (on the left side of the picture), NSU chemistry junior, participated in a Faculty and Student Team (FaST) program at Brookhaven National Labs Summer 2010. Eric was nervous when he first arrived at his first out-of-state research experience, but after becoming acquainted with new people and making new friends, he had a lot of fun. Some of Eric’s best memories of the BNL experience is going to his mentor’s house and talking with the group as well as attending a concert with two new friends. Of course, using the weekends to explore the beach, New York, and the surrounding area was great. In his words, “*there was never a dull moment in New York.*”



Eric was selected to give an oral presentation of the summer research project. The selection was based on his excellent abstract and the confidence BNL had in his knowledge of the material. “*It’s a great feeling when people you strive to be like take a look at your work and are impressed. It is reassurance that I will succeed because I work hard for this and my work shows.*”

Eric’s suggestion to other scholars is to “*get out of your comfort zone. Too often people will pass up a great opportunity because they are scared. I was scared to death going into this because I was leaving behind my family and friends for ten weeks. I quickly made new friends—good friends—friends I still talk to and plan on visiting as soon as possible. You step out of your comfort zone by just going, but it doesn’t stop there. Get out and socialize and make friends. It makes the trip a whole lot more fun.*”

C. Matthew Duncan, OSU geology senior, was one of 17 students from around the world invited to the American Association of Petroleum Geologists (AAPG) Annual Leadership Summit in Tulsa, Oklahoma, and was a member of the Student Chapter Leadership Committee. After the conference, Matt was named as the Student Representative to the AAPG Astrogeology Advisory Board. In the picture, Matt is at Pikes Peak during his 2010 summer field camp expedition with the OSU geology department.



Amazing People

Justina Bradley, LU biology senior, was selected to present at Oklahoma Research Day at the Capitol (sponsored by EPSCoR) on March 31, 2011. Justina won first prize in her division for her poster on the research she conducted at Brookhaven National Laboratory (BNL) as part of a Faculty and Student Team (FaST) Summer 2010. *Pictured L-R: Dr. Gilbert John (OSU Associate Professor Microbiology & Molecular Genetics, OK-LSAMP and FaST program mentor), Dr. Stephen McKeever (Oklahoma Secretary of Science and Technology, OSU VP for Research and Technology Transfer), Justina, and Dr. James P. Wicksted (Associate Director and PI, Oklahoma NSF EPSCoR).*



(Continued from page 2)

Joshua Hardisty, OU, SI—Alabama A & M University Research Experience for Undergraduates
 Kody Jones, NWSU, SI—Benham, Oklahoma City, OK
 Vicky Kelly, OSU, SI—Louisiana State University Howard Hughes Medical Institute Program
 Dawn Kennedy, NSU, SI—OK IDEa Network for Biomedical Research Excellence Program;
 GS—OU GPiBs PhD Program
 Elaine Kimball, CU, SI—OK IDEa Network for Biomedical Research Excellence Program
 Jordan Knight, OSU, Chesapeake Energy, Oklahoma City, OK
 Emmanuel S. Livingston, III, OU, SI—Halliburton Co.
 Lydia Meador, GS—Arizona State University
 Andrew Mock, OSU, SI—Science Applications International Corporation, OKC, OK;
 GS—University of Illinois
 I. Abrey Monreal, OSU, SI—Washington State University Research Experience for Undergraduates
 Ricardo Montoya, OSU, SI—Engineering Cities at Drexel University
 Guillermo Morales, OU, SI—NASA's Langley Aerospace Research Center, Hampton, VA
 Kelsey Raus, OU, SI—Sooners without Borders, Bolivia; BP DEVAS; and Study Abroad, Italy
 A. Dwayne Riley, ECU, GS—University of Wisconsin medical physics
 Megan Salisbury, OU, SI—BP America Exploration and Production Department, Houston, TX
 Jason Semien, OSU, SI—OSU ConocoPhillips Bridge Program Counselor/Guide
 Alesia Sharber, OSU, SI—OSU Zoology Department
 Isaac Smith, OSU, SI—Carrell Asphalt through the Creek Nation Summer Youth Work Program
 Ana Tehrani, UCO, SI—OSU Statistics Department
 Dominique Thomas, CU, SI—on campus; GS—OU School of Instructional Psychology and Technology
 Britani Vann, LU, SI—University of North Texas
 Joshua Warren, OSU, SI—UCO Research Experience for Undergraduates, Turkey
 Tyeshia Waters, OU, SI—ConocoPhillips
 Lauren White, OSU, SI—Independent Research Project, Kenya
 CJ Williams, OSU, SI—Oakland University Research Experience for Undergraduates, Rochester, MI

Amazing People

Cammi Valdez, OK-LSAMP alumna, received her BS from Southwestern Oklahoma State University. This past summer, Cammi was one of 77 United States students invited to the **Nobel Laureate Conference** in Germany. She was also one of only seven United States students invited to attend the **Euroscience Open Forum** in Torino, Italy. Cammi was asked a few questions about her experiences and her responses were:

Q: What did attending these conferences mean to you?

A: Attending the 60th Lindau Nobel Laureate Meeting was a wonderful opportunity to meet the leaders of the scientific community. It was actually the interdisciplinary year, which meant there were Nobel Laureate's from Chemistry, Medicine/Physiology, and Physics. As a graduate student doing interdisciplinary work in chemistry and biology, this was a really fortunate situation for me. The Euroscience Open Forum was a wonderful way to share ideas between media who report on science and the scientists themselves. This was a very unique conference that gave a lot of insight on those sharing with the public the discoveries made in science.

Q: What three things stand out in your mind about the trips?

A: I think the first thing that stands out to me is the amazing opportunity and honor of getting to meet the Nobel Laureates. The second being the awesome scientific community that was present at both conferences; there were students from all over the world who all had the same common interest and love of science. I met so many wonderful new friends! The third thing would just be my surroundings: Lindau, Germany, and Torino, Italy, both of which were gorgeous. During the trips, I got to meet the Count and Countess of Lindau and go to a dinner at a castle in Torino. I'm not sure it gets much more fairy tale than that!

Q: When is your estimated Ph.D. graduation date?

A: I get that question all the time. It's difficult to answer, but currently we are planning for Spring 2013. Cross your fingers!

Q: What is next on your list of things to accomplish?

A: I'm working towards my first publication in graduate school on my thesis project. We are getting really close, and it is pretty exciting!

Q: What would you say to current and future scholars?

A: Be proactive about your career, both professional and academic. Stay involved - having activities that tie you to people who share your similar interests can be such an asset and can create a wonderful community of support. Apply - apply to everything; there are so many opportunities out there, but the first step is to simply apply.



Pictured: L—Cammi with Sir Martin Evans at the Nobel Laureate Meeting; Top R—Cammi at a castle in Torino, Italy; Bottom R—Sherwood Rowland and Cammi.



Amazing People

OK-LSAMP has had four cohorts of **Bridge to the Doctorate** Fellows. 48 former LSAMP Scholars have completed and/or are working on graduate degrees. Some of the successes of this program are:



Desmond Harvey received his BS degree in chemistry from Langston University. He continued his education at the University of Oklahoma where he became a Bridge to the Doctorate Fellow and earned his MS in industrial engineering. He is currently working toward his Ph.D. in adult and higher education. Desmond worked at his alma mater as the Coordinator of Education, Technology, and Data (ETD) for Langston's Integrated Network College (LINC). In March 2011, he became the Multicultural Engineering Program (MEP) Coordinator at Oklahoma State University. Desmond works on the recruitment and retention of underrepresented undergraduate students in all STEM disciplines, but especially engineering.

Graduate degrees completed and those expected to be granted to BD Fellows by the end of 2011 include:

Dominic Barrett—Cohort I, OSU

MS, Natural Resource Ecology Management, 2008

Marcus Benjamin—Cohort III, OSU

Expected MS, Chemistry, 2011

Tomica Blocker—Cohort III, OSU

Expected MS, Zoology, 2011

Brett Cowan—Cohort I, OSU

Ph.D., Civil Engineering, 2007

Cara Cowan Watts—Cohort I, OSU

Expected Ph.D., Biosystems Engineering, 2011

Felix de la Cruz—Cohort II, OU

MS, Mechanical Engineering, 2010

Scott Fine—Cohort III, OSU

MS, Plant and Soil Sciences, 2010

Erik Gonzales—Cohort III, OSU

Expected MS, Physics, 2011

Jonathan Gonzales—Cohort III, OSU

MS, Electrical Engineering, 2009

Steven Harris—Cohort II, OU

Ph.D., Biochemistry, 2011

Desmond Harvey—Cohort II, OU

MS, Industrial Engineering, 2008

Marty Heppler—Cohort I, OSU

MS, Entomology/Plant Pathology, 2007

Quintin Hughes—Cohort II, OU

MS, Industrial Engineering, 2009

Estimated Ph.D., Industrial Engineering, 2011

Kevin James—Cohort II, OU

MS, Electrical Engineering, 2009

Jacob Manjarrez—Cohort I, OSU

Expected Ph.D., Biochem. & Mol. Biology, 2011

Shawn McCarroll—Cohort II, OU

MS, Computer Science, 2009

Minh Ngo—Cohort III, OSU

MS, Forensics-Toxicology, 2010

Israel Osisanva—Cohort II, OU

MS, Petroleum Engineering, 2008

Thomas Patten—Cohort I, OSU

MS, Mechanical Engineering, 2009

Lila Peal—Cohort I, OSU

Expected Ph.D., Biochem. & Mol. Biology, 2011

Cody Pinkerman—Cohort III, OSU

MS, Aerospace & Mechanical Engineering, 2010

Adrienne Sherman—Cohort I, OSU

MS, Environmental Science & Biosystems, 2009

William Vazquez—Cohort II, OU

MS, Mathematics, 2008

Brek Wilkings—Cohort I, OSU

Expected Ph.D., Biomedical Sci., 2011

Cristee Wright—Cohort I, OSU

MS, Microbiology/Cell & Molecular Biology, 2007

C. Doug Yarholar—Cohort III, OSU

MS, Civil Engineering, 2010

Many other MS and Ph.D. degrees are expected to be completed within the next three years.

Amazing People

The first University of Oklahoma Bridge to the Doctorate Fellow has received a Ph. D.! **Steven**

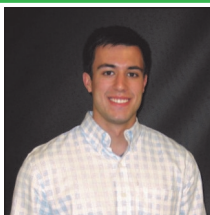


Harris completed requirements for a doctor of philosophy degree in biochemistry and graduated May 13, 2011. In addition to his studies and duties as a BD Fellow, Steven dedicated himself to mentoring and encouraging undergraduate students in STEM disciplines. He served as a mentor during the Speed Mentoring session at the first OK-LSAMP Pursuing Higher Degrees (PHD) Camp (*pictured right*). Steven has been accepted into the Seeding Postdoctoral Innovators in Research and Education (SPIRE) program at the University of North Carolina, Chapel Hill. He will begin this next phase of his career in September. Steven would like every scholar to, “set goals and make steps towards achieving them every day!”



OK-LSAMP BD now has 2 Ph. D. degrees granted with four more to be completed by the end of the summer.

Andrew Mock, OSU architecture engineering and design, received a 2011 Graduate Research Fellowship Program (GRFP) award. After graduation, Andrew will spend the



summer in Oklahoma City as an intern for Science Applications International Corporation (SAIC). He will continue his education at the University of Illinois.

Lydia Meador (botany, biochemistry, and microbiology) and **J. Connor Ferguson** (plant and soil sciences) were both selected as Oklahoma State University Alumni Seniors of Significance, Fall 2010. Additionally, they were selected as OSU Outstanding Seniors for the 2010/11 academic year—only 12 seniors were chosen for this honor.



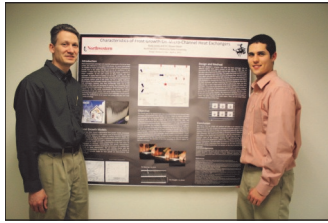
Lydia is a triple major from Broken Arrow who will graduate with degrees in botany, biochemistry and molecular biology, and microbiology and molecular genetics. In addition to her participation in OK-LSAMP, Lydia has participated in a Winter Mini Session at



Brookhaven National Laboratory, conducted research for a Niblack Scholarship, and received the Goldwater National Scholarship. After graduation, Lydia will continue her education at the University of Arizona as a Graduate Research Fellowship Program (GRFP) Fellow.

Connor is a plant and soil sciences major from Norman. In addition to his OK-LSAMP participation, Connor has been active in campus organizations such as Student Government and the American Society of Agronomy. He also served on the planning committee for 2009 Orange Peel and was selected as a 2010 Homecoming Royalty Man Top 5 Finalist. Connor conducted research for a Wentz Research Scholarship and received the 2011 Greek Man award for his leadership in Alpha Tau Omega. After graduation, Connor will pursue his graduate studies at the University of Nebraska.

Amazing People



Kody Jones, NWOSU, presented a poster at Northwestern Oklahoma State University's Ranger Research Day on Friday, April 1, 2011. Kody received 1st place for his presentation on "Characteristics of Frost Growth on Micro-Channel Heat Exchangers." Pictured is Kody (on the right) with his mentor, Dr. Steven Maier (on the left). Kody will be transferring to OSU where he will continue to be involved in the OK-LSAMP program and research projects.

Joshua Warren, OSU physiology junior, will travel to Turkey to study bees as part of a Research Experience for Undergraduates (REU) Program. Joshua will travel with his mentor, Dr. Charles Abramson, to study aspects of the foraging ecology of solitary bees and honey bees in their native region of the world. He will be working with a multinational team of scientists from the U.S., Turkey, Greece, and Bulgaria. We look forward to Joshua's pictures and stories of his experience.



JR Conan, OU mechanical engineering, attended the American Society of Mechanical Engineers District E Student Professional Development Conference at the University of Arkansas, Fayetteville, Arkansas, March 17-22, 2011. While there, he was awarded the Best Technical Project Award and an Oral Presentation Award for his research and presentation.

REMEMBER
WHEN?



WHAT'S
NEW?



TELL US ABOUT IT!!!

OK-LSAMP is proud of our scholars and alumni, and we love to share their stories of accomplishment and success. If you are a current or past OK-LSAMP Scholar, we would like to hear from you. Please provide us with an update on the honors/awards you have received, the degrees you have earned, and the projects you have completed as well as your current projects and interests and any advice you may have for current and future scholars. Send them to: 409 Scott Hall, Stillwater, OK 74078; kay.porter@okstate.edu, 405-744-6710; fara@okstate.edu, 405-744-7820; okamp@okstate.edu, or fax 405-744-4202.

Amazing People



The OK-LSAMP Program has had 17 years of success in increasing the number of students from under-represented populations who have completed degrees in the Science, Technology, Engineering, and Mathematics (STEM) disciplines. This success would not be possible without the hard work and determination of the OK-LSAMP staff. They have excellent credentials and have adapted the motto that

“learning is a lifelong process.”



OK-LSAMP ADMINISTRATION

Mark E. Payton, Ph.D., Principle Investigator, Oklahoma State University (OSU)

Dr. Payton is the Interim Dean of the Oklahoma State University Graduate College. Dr. Payton received a BS in Mathematics Education from Southwest Missouri State University as well as an MS and Ph.D. in Statistics from Oklahoma State University. He joined the Graduate College as Associate Dean in May 2006. His responsibilities include the oversight of the various functions and activities of the Graduate College. In addition to his position as interim dean, Dr. Payton holds the title of Professor in the Department of Statistics and has been a faculty member since 1991. As a statistician, Dr. Payton conducts collaborative research with faculty members and graduate students on campus from many of the OSU academic colleges.

Rosemary Hayes, Ph.D., Evaluator, University of Oklahoma (OU)

Dr. Hayes was one of 20 women in 2004 to receive her doctoral degree in Computer Information Services. In the computing sciences area, she focuses on usability of online interfaces and the multi-criteria evaluation models. Dr. Hayes also has an extensive background in issues relating to the retention of college students. As Executive Director of the Consortium for Student Retention and Data Exchange, she works with over 600 colleges and universities that are dedicated to improving the retention and completion rates of college students. She has authored over twenty-five reports on the status of college student retention, including the retention of STEM students and maintains the National Database on the Retention of Graduation and First-time Full-time STEM students. Dr. Hayes has convened all National Symposium on Student Retention. She has also served as a consultant to the U.S. Department of Education, and on behalf of the Kellogg Foundation, worked with five South African colleges on methods to track the retention and completion of their students.

Kay Porter, Program Manager, Oklahoma State University (OSU)

Kay received a BS in Trade and Industrial Education and an MS in Occupation and Adult Education from Oklahoma State University. Kay joined OK-LSAMP in October 2007, and constantly works on insuring that program procedures adhere to LSAMP and NSF guidelines. Her yearly reports tell the story of the accomplishments of scholars and staff alike.

Fara Williams, Grant Coordinator, Oklahoma State University (OSU)

Fara received a BS in Elementary Education/Middle Level Science from Oklahoma State University. She taught for seven years in public and private schools. Fara joined OK-LSAMP in March 2007 and continues to make strides in organizing and documenting the progress of the program and its participants.

Amazing People

OK-LSAMP CAMPUS STAFF

Jody Buckholtz, Ph.D., Northeastern State University (NSU)

Dr. Buckholtz received a BS from the University of Central Arkansas and an MS and Ph.D. from the University of Arkansas. Her research interests include electrochemistry—oxygen reduction reaction catalysis, nitrate determination in rural well-water supplies as well as energetic materials—primer construction modification for potential automation of the process in order to improve safety. Currently, Dr. Buckholtz is an assistant professor in the Department of Natural Sciences and is also the College Safety Officer at Northeastern State University.

Susy Calonkey, University of Oklahoma (OU)

Susy has a BA in Journalism from the University of Oklahoma. She is the Assistant to the Associate Dean as well as Recruiting and Outreach Visit Coordinator. Currently, Susy serves on the Staff Advisor Deans Leadership Council, Staff Advisor E-1, Freshmen Engineers, and the Deans Advisory Board on Diversity.

J.C. Diaz, Ph.D., University of Tulsa (TU)

Dr. Diaz has a BS in Mathematics from Universidad de los Andes, Bogota, Columbia, and a MA and Ph.D. from Rice University, Houston, Texas. His research interests include robotics. One of Dr. Diaz's accomplishments is a summer robotics workshop for high school students for which OK-LSAMP Scholars from Tulsa serve as mentors.

Tim Hubin, Ph.D., Southwestern Oklahoma State University (SWOSU)

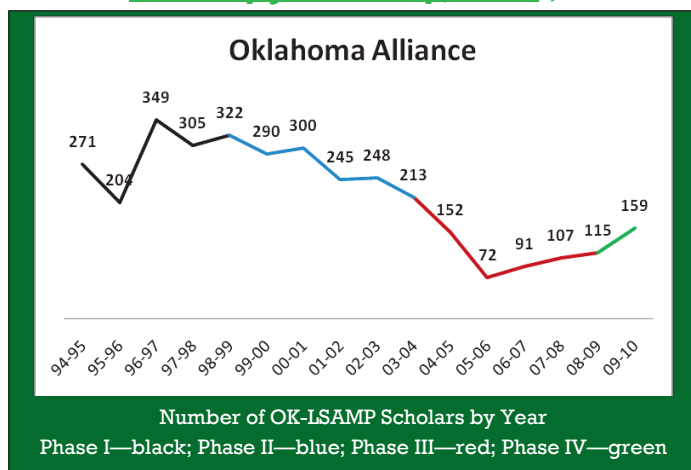
Dr. Hubin received a BS in Chemistry and a BS in Secondary Science Education from Kansas State University. He received his Ph.D. in Chemistry from the University of Kansas. Dr. Hubin's research interests include coordination chemistry, bioinorganic chemistry, metal-containing drugs, and supramolecular chemistry. Currently, he is working on development and screening of transition metal complexes as CXCR4 antagonists.

Sharon Lewis, Ph.D., Langston University (LU)

Dr. Lewis has a BS in Zoology from Howard University as well as an MS and Ph.D. in Chemistry from the University of Oklahoma. Her research interests include bioinformatics and molecular biology. Currently, Dr. Lewis is an Assistant Professor and is working on an analysis of the molecular role of ANK3 in bipolar disorder.

Timothy J. Maharry, Ph.D., Northwestern Oklahoma State University (NWOSU)

Dr. Maharry has a BA with distinction in Mathematics from Hastings College as well as an MS in applied Mathematics and a Ph.D. in Statistics from Oklahoma State University. His research interests include math education, statistical literacy, and numerical analysis. Currently, Dr. Maharry serves as Chair and Associate Professor, Department of Mathematics and Computer Sciences.



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Amazing People

(Continued from page 11)



Pam McDown, University of Central Oklahoma (UCO)

Pam has a BA from California State University, Sacramento, and a Masters of Music from UCO. Her research interests include topics in music with a special interest in European 18th and 19th century historical performance practice. Currently, Pam is the Coordinator, Research Programs; Office of Research & Grants; and Academic Affairs. She is assisting in the preparation and launching of two new UCO Faculty on-campus grant programs.



Tim Patton, Ph.D., Southeastern Oklahoma State University (SEOSU)

Dr. Patton has a BS in Fisheries and Wildlife Management from Arkansas Technical University and an MS and Ph.D. in Zoology and Physiology from the University of Wyoming. His research interests include ecological issues surrounding fish and aquatic ecosystems as well as amphibians and reptiles. Currently, Dr. Patton is an Associate Professor in the department of Biological Sciences.

P. Simin Pulat, Ph.D., University of Oklahoma (OU)

Dr. Pulat has a BS in Industrial Engineering from Middle East Technical University and an MS and Ph.D. in Operatives Research from North Carolina State University. Her research interests include mathematical modeling and optimization, supply chain logistics, real-time decision making, and transportation scheduling. Currently, Dr. Pulat is Associate Dean, Undergraduate Engineering Programs as well as a Howard and Suzanne Kauffman Chair and Professor.

Carl Rutledge, Ph.D., East Central University (ECU)

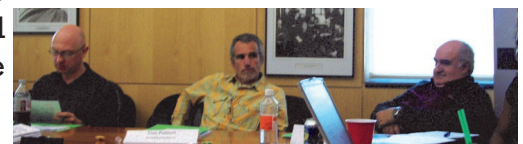
Dr. Rutledge received a BS, MS, and Ph.D. in Physics from the University of Arkansas. His research interests include physics and astronomy education as well as x-ray diffraction studies of tetrahedral molecules in the liquid state. Currently, Dr. Rutledge is working on CCD photography at the ECU observatory. He is the Adolph Linscheid Distinguished Teaching Professor and Chairman of the Physics Department.

Frank White, Ph.D., Cameron University (CU)

Dr. White received a BS from Texas Tech University and a MS and Ph.D. from Oklahoma State University. He was a postdoc at Texas A & M and is currently the Mullin Endowed Chair of Agriculture at Cameron University. His research interests include reproductive physiology and reproductive immunology—studying the interactions between the uterus and embryo during normal and endocrine disrupted pregnancy.

Gregory M. Wilson, Ph.D., University of Central Oklahoma (UCO)

Dr. Wilson has a BA in Biology from Central College, an MS from Fort Hays State University, and a Ph.D. in Zoology from Oklahoma State University. His research interests include using molecular techniques to investigate questions relating to genetics, phylogeography, molecular ecology, and systematics in an array of organisms, especially mammals. He is particularly interested in how heterogeneous landscapes impact contemporary genetic structure of extant populations. Currently, Dr. Wilson is the Executive Director, Office of Research and Grants and an Associate Professor in the Biology Department.



Amazing Places

Partner campuses in the Oklahoma Louis Stokes Alliance for Minority Participation are featured in this and subsequent issues of The Link. Each Partner institution is vital to the success of the Alliance, and it is only fitting to highlight the special qualities and characteristics of each campus that contribute to that success.



Bronze sculpture of Sequoyah, noted 19th century Cherokee diplomat and creator of the Cherokee syllabary

Northeastern State University (NSU) was founded as the Cherokee National Female Seminary in 1846. In 1887, the original Seminary was destroyed by fire. It was rebuilt in a different location and dedicated in 1889. The history of NSU as a state institution began on March 6, 1909, when the Oklahoma legislature purchased the Female Seminary and created Northeastern State Normal School. It has gone through several name changes including Northeastern State Teacher's College and Northeastern State College. It was officially changed to Northeastern State University in 1985. The centennial of the institution was celebrated by the revealing of the Sequoyah statue and dedication of Centennial Plaza.



Today, NSU is Oklahoma's fourth largest public four-year institution and one of six regional institutions governed by the Regional University System of Oklahoma board. It's three campuses (Tahlequah, Muskogee, and Broken Arrow) serve nearly 9,000 students annually.

NSU has been ranked by *Diverse Issues in Higher Education* as the top institution for granting bachelorette degrees to Native Americans—all disciplines, education, and psychology. It also ranks among the top five for bachelorette degrees to Native Americans in business, biological and biomedical sciences, and English and literature disciplines. It ranks in the top 10 institutions for bachelorette degrees to Native Americans in health professions and related clinical sciences as well as computer information sciences and support services. A few NSU statistics include:

- 45% of the faculty are women
- 14% of the faculty are minority
- 95% of NSU classes have fewer than 50 students
- 56 undergraduate programs
- 21 graduate programs

To learn more, visit www.nsuok.edu



Amazing Events

Eleven OK-LSAMP BD Fellows attended the **2010 NSF HRD Joint Annual Meeting (JAM)** in Washington, D. C. June 2010. The Oklahoma Alliance also presented two posters at the conference—one on BD Programs and one on the Pursuing Higher Degrees (PHD) Camp.

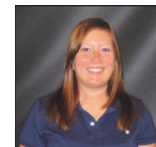
Pictured clockwise from left: Tomica Blocker, OSU zoology Fellow; Shawna Hughes, OSU food sciences Fellow; Fara Williams, OK-LSAMP Grant Coordinator; Kay Porter, OK-LSAMP Program Manager; Susy Calonkey, OU Program Coordinator; Brittani Atkinson, OU biochemistry Fellow; Lorne Jordan, OU chemistry Fellow; L. Meghan Liles, OU biochemistry Fellow; Shawna Ong, OU electrical engineering Fellow; Chrystal Moore, OU microbiology Fellow; Chris Aguayo, OU aerospace engineering Fellow; Ryan Watley, OU chemistry Fellow; Erik Gonzales, OSU physics Fellow; Jonathan Gonzales, OSU electrical engineering Fellow



Fellow; Jonathan Gonzales, OSU electrical engineering Fellow



J. Connor Ferguson, OSU plant and soil sciences senior, and **Laura Scott**, OSU zoology senior, both received travel scholarships to attend and present at the **2010 Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference**.



A group of OK-LSAMP Scholars traveled to St. Louis, Missouri, for the **2011 National Society of Black Engineers (NSBE) National Convention**. While there, **Darryl Wells** (*pictured left*), mechanical and aerospace engineering senior, received an award sponsored by the Board of Corporate Affiliates—the NSBE Fellows Scholarship. **Darron “DJ” Lamkin** (*pictured right*), industrial engineering graduate student, has been selected as NSBE Region 5 Chair Elect. DJ received his BS in mechanical engineering and technology, May 2010. Congratulations Darryl and DJ! Keep up the great work!



Amazing Events

Oklahoma Experimental Program to Stimulate Competitive Research (EPSCoR) again provided support for OK-LSAMP scholars to attend the **National Conference for Undergraduate Research (NCUR)**. This year, 13 Oklahoma undergraduates (11 of whom were OK-LSAMP scholars) presented at Ithaca College. **Dr. Tim Hubin**, Campus Coordinator, and **Dr. Jimena Aracena**, mentor, from Southwestern Oklahoma State University accompanied the students to New York. Additionally, **Dr. Mark Payton**, OK-LSAMP PI, attended the event as a representative of the OSU Graduate College as well as OK-LSAMP. Dr. Payton says, "What made the trip totally worth it was the opportunity to be with the scholars. That was priceless."



Pictured L-R: **Ana Tehrani**, UCO mathematics, presented a poster on "Statistical Analysis for Electro-Mechanical Response of Poly Vinyl Alcohol (PVA) and Poly Acrylic Acid (PAA) Hydrogels." **Vicky Kelly**, OSU entomology, presented a poster on "The Effects of Rabon Mineral on Gastrointestinal Nematodes in Sheep." **Irene Lopez**, SWOSU biology, presented a poster on "Decision-Making in Feeding and Mating Behaviors of Field Collected

Fruit Flies (*Drosophila Melanogaster*)." **Daniel Dixon**, OSU engineering, gave an oral presentation on "Exploration of Fluid Eccentricities and Hot Film Anemometer Probes." **Laura Scott**, OSU environmental sciences, made an oral presentation on "Anthropogenic Organic Compounds in Surface Waters in Stillwater, Oklahoma." **Lydia Meador**, OSU botany, microbiology and molecular genetics, and biochemistry and molecular biology, gave an oral presentation on "Characterization and Evolutionary Potential of Tandemly Duplicated Genes in Arabidopsis Thaliana and Arabidopsis Lyrata." **Dr. Payton. Alesia Sharber**, OSU botany and zoology, gave an oral presentation on "Why is the Bluebird Blue?" **Ricardo Montoya**, OSU architecture engineering, presented a poster on "Use Response to the Newly Renovated School of Architecture Facility: Post Occupancy Evaluation." **Jennifer Roach**, OSU Freshman Research Scholar, presented a poster on "Impact of Physical Activity Performed During Puberty and Early Adulthood on Bone Mineral Density in Native American Women Fifty Years of Age and Older." **Dr. Aracena** presented "Using Foraging Behavior of Fruit Flies to Introduce Undergraduates to Research in Biology." **Tiffany Evans**, TU computer sciences, made an oral presentation on "Creating Realistic Human Expression for a Robotic Application." **Kevin Wilson**, SWOSU chemistry student, presented a poster on "Synthesis and Characterization of Pyridine-Armed Reimforced Macrocycles and Their Metal Complexes." *Not Pictured:* **Wilmon Brown, III**, OSU microbiology, presented a poster on "Purification of Protein Antigens from Shigella." **Sharome Goode**, UCO chemistry, presented a poster on "Tracking Phthalate Esters and Bis Phenol A in Oklahoma Surface Waters Using SPME and GCMS."

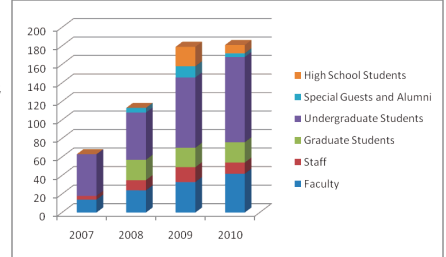


In 2012, NCUR will be held at Weber State University in Ogden, Utah. Abstracts will be due in December. Be sure to bookmark the NCUR website for future reference and remember to submit an abstract for next year's event.



Amazing Events

The **16th Annual Research Symposium** was held on Saturday, September 25, 2010. OK-LSAMP IS proud to say the attendance for the symposium has increased greatly in the last four years (*chart at right*). Tremendous success in attaining nationally acclaimed speakers has been achieved. In 2009, **Daniel H. Wilson**, Ph.D., noted science fiction author, television host, and OK-LSAMP alum, spoke on his experiences and expertise in robotics. In 2010, **Henry Neeman**, Ph.D., director of the Oklahoma Supercomputing Center for Education and Research at the University of Oklahoma, presented “Supercomputing in Plain English.” This year, 2011, **Tyrone Hayes**, Ph.D., professor at the University of California, Berkeley, will serve as the keynote speaker.



As always, the symposium will focus on OK-LSAMP and other invited scholars who make oral and poster presentations on their research. In addition, there are seminars on topics such as graduate school and research ethics, and lunch is a tasty meal from Klien’s catering. You must be an OK-LSAMP or invited scholar in order to present, but everyone is invited to attend. As time gets closer to the event, information, as well as on-line registration, will be available on the OK-LSAMP website. In the meantime, if you should have questions or want more information, do not hesitate to contact Kay Porter, Program Manager, or Fara Williams, Grant Coordinator.



Pictured Left-Right, Top-Bottom: Mark E. Payton, OK-LSAMP PI; Robert Sternberg, OSU Provost; Henry Neeman, Keynote Speaker; Participants in Neeman activity; Jason F. Kirksey, OSU Associate VP, Institutional Diversity; Poster and Recruitment Session; Summer Internship Q & A Panel— Gabrielle Brown, Cassandra Camp, Laura Scott, Eric Butson, Courtney Garcia; Graduate School Q&A Panel— Tomica Blocker, Lorne Jordan, Mike Wine

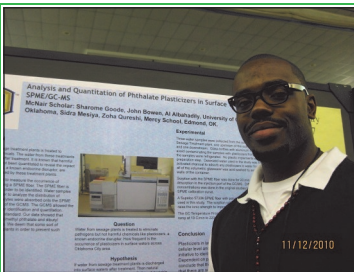
Amazing Events



In October, 2010, a group of Oklahoma students and staff traveled to the **Women of Color STEM Conference** in Dallas, Texas. OK-LSAMP Scholars, BD Fellows, and others attended workshops on topics such as networking and resume building. In addition, students participated in a career fair and attended a formal gala awards dinner. **Kay Porter**, OK-LSAMP Program Manager, and **Fara Williams**, OK-LSMAP Grant Coordinator, received recognition "For outstanding contribution to the STEM Disciplines at the 15th Women of Color STEM Conference."

"I am very glad I attended the Women of Color Conference. I met important people, got a chance to network, and acquired skills on presenting myself professionally. I am inspired by all the successful women I met at the conference." - Anwuli Anyah, UCO Scholar

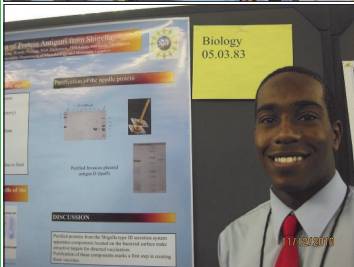
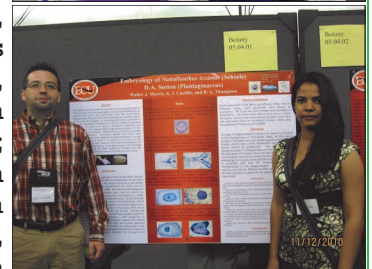
The 16th Women of Color STEM Conference will be held November 3-5, 2011, in Dallas, Texas. The cost for students includes hotel, event registration, and most meals. Transportation for those in Oklahoma is organized by Kay Porter. For more information, visit www.womenofcolor.net.



Oklahoma Research Day was held on Friday, November 12, 2010, at Cameron University. OK-LSAMP was well represented at this event with **35 Scholars** presenting research. These included:



Tristan Allen, LU; Shaquita Banks, LU; Justina Bradley, LU; Rashawnda Brown, LU; Wilmon Brown, III, OSU; Nicole Bryant, OSU; Kenia Castillo, ECU; Rose Cooper, LU; Kelley Dixon, NSU; Sharome Goode, UCO; Elaine Harder, CU; Jamila Harris, LU; TaShae Harrison, LU; Princess Hays, LU; Shawna Hughes, OSU BD Fellow; Phoebe Lewis, LU; Irene Lopez, SWOSU; Alex Macharia, UCO; Lydia Meador, OSU; Walter Morris, ECU; Brennan Ochoa, UCO; ShaRhonda Pickett, LU; Jamee Ramsey, OSU; JeAnna Redd, UCO; Aaron Riley, ECU; Ethan Rowell, UCO; Alisha Shephard, ECU; Yasmeen Shumate, LU; Amanda Steele, LU; Brittany Stoutermire, LU; Andrew Tabor, SEOSU; Ana Tehrani, UCO; Kristen Thompson, ECU; Britani Vann, LU; Quanisha Vickers, LU; Henry Whitener, NSU; and Lamar Williams, UCO.



Pictured Clockwise from Top Left: Sharome Goode, UCO; Rose Cooper, LU; Walter Morris and Kenia Castillo, ECU; Irene Lopez, SWOSU; Wilmon Brown, III, OSU; main poster room.



Amazing Opportunities

BE SURE TO LOCATE AND APPLY FOR GRADUATE SCHOOL, SUMMER INTERNSHIP, AND SCHOLARSHIP OPPORTUNITIES.

Research experiences are an integral part of the OK-LSAMP program. It is important for each scholar to seek, apply for, and participate in full summer internships. There are a variety of opportunities available. It is never too early to search on-line to find an internship opportunity that matches your discipline and interests. Some great internship programs include:

- ⇒ Research Experiences for Undergraduates (REU) funded by the National Science Foundation. These opportunities exist all across the nation with several international opportunities. www.nsf.gov/crssprgm/reu/reu_search.cfm.
- ⇒ IDeA Networks for Biomedical Research Excellence (INBRE) programs.
- ⇒ Summer Undergraduate Research Experience (SURE) programs.
- ⇒ Summer Minority Advanced Research Training (SMART) programs.

Presentations are an important step to developing the skills necessary for sharing research ideas, processes, and results. In order for OK-LSAMP Scholars to be prepared for and competitive in their respective fields, presentation experience is essential. Conferences are also a way to network and meet people with whom future collaborations may develop. Below are upcoming opportunities for undergraduate students to attend conferences and present research projects. **Remember to check the deadlines for submitting abstracts and completing travel scholarship applications. Also remember that each OK-LSAMP Scholar is required to attend and present, if possible, at the OK-LSAMP Annual Research Symposium.**

- ⇒ New Mexico LSAMP Conference, New Mexico State University, Las Cruces, NM, September 29-October 1, 2011. nmsu.edu/~nmamp/conference
- ⇒ **OK-LSAMP 17th Annual Research Symposium, Stillwater, OK, October 1, 2011. www.ok-lsamp.okstate.edu.**
- ⇒ Society for the Advancement of Chicanos and Native Americans in Science, San Jose, CA, October 27-30, 2011. sacnas.org
- ⇒ Women of Color STEM Conference, Dallas, TX, November 3-5, 2011. www.womenofcolor.net. **This will be the 1st year student presentations will be made. Be a part of it!** Those in Oklahoma who may be interested in attending, should contact Kay Porter for travel coordination (kay.porter@okstate.edu, 405-744-6710).
- ⇒ Oklahoma Academy of Sciences Fall Technical Meeting, Southeastern Oklahoma State University, Durant, OK, November 4, 2011.
- ⇒ Oklahoma Research Day, TBA, November 2011.
- ⇒ **National Conference for Undergraduate Research (NCUR), Webber State University, Ogden, UT, March 29 -April 1, 2012. ncur.org/theconference.htm**

Other Opportunities

Women in Science Conference, Oklahoma Science Museum, Oklahoma City, OK. Scholars can volunteer to help in this event that encourages middle school and high school girls to pursue careers in science, technology, engineering, and mathematics (STEM) disciplines. The next Women in Science Conference will be held October 4, 2011. www.okepscor.org.

Cherokee Nation Science and Engineering Fair, Northeastern State University, Tahlequah, OK. Scholars, faculty, and staff can volunteer to judge middle school and high school science fair projects. The next one will be held January, 2012.

Sac N Fox Nation Science Fair. Scholars, faculty, and staff can volunteer to judge science fair projects. Date TBA.
Council on Undergraduate Research (CUR). Scholars and other researchers may register with this organization and upload their resume. National laboratories will be able to search and find qualified applicants to fill open research positions.

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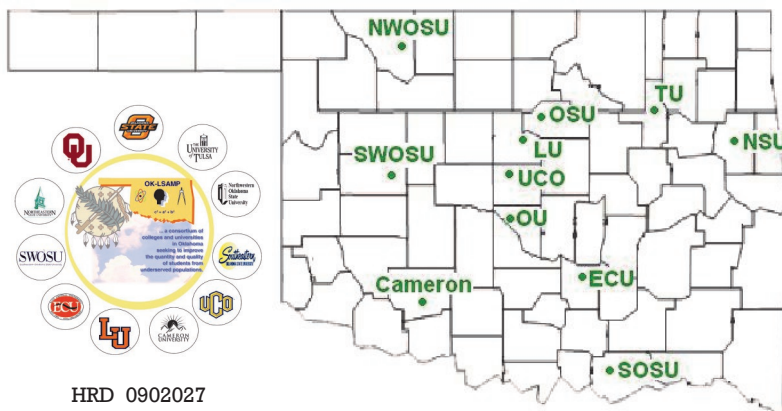
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For information on each partner campus including admission qualifications and student services, visit the websites of the universities. For information on campus specific requirements and activities of the OK-LSAMP program, contact the Campus Coordinator (contact information above). **OSU** (Lead Institution)—osu.okstate.edu/welcome/, **CU**—www.cameron.edu, **ECU**—ecok.edu, **LU**—www.lunet.edu, **NSU**—nsuok.edu, **NWOSU**—nwosu.edu, **SOSU**—www.se.edu, **SWOSU**—www.swosu.edu, **UCO**—www.uco.edu, **OU**—www.ou.edu, **TU**—www.utulsa.edu

The Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) is a consortium of Oklahoma colleges and universities working together to develop programs aimed at increasing the number of students who receive degrees in Science, Technology, Engineering, and Mathematics (STEM) disciplines. Current OK-LSAMP goals focus on undergraduate research experiences, graduate school preparation, and international experiences.



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If you have questions, comments, or suggestions for *the Link*, please call 405-744-7820 or email fara@okstate.edu.

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