

THE LINK



*The Oklahoma Louis Stokes Alliance for Minority
Participation in Science, Technology,
Engineering, and Mathematics
Funded by the National Science Foundation
(Cooperative Agreement Number HRD 0902027)
A. James Hicks, PhD, Alliance Program Director*



OK-LSAMP Biannual Newsletter Fall 2009



Greetings from the PI—Gordon Emslie, PhD

It has been a very busy time within the OK-LSAMP Alliance since the last newsletter. During the fall, I visited with most of the Alliance campuses throughout the state, where I spent some very valuable time with the campus coordinators, university leaders and, most importantly, the LSAMP scholars themselves.

In January, the campus coordinators met for a weekend retreat to establish even more innovative strategies to enhance the overall experience offered to our LSAMP scholars. This includes a new PHD (Pursuing Higher Degrees; thanks to Kay and Fara for the name!) camp, which will be held at the University of Central Oklahoma this March. There, forty-four of our committed LSAMP scholars will spend some of their precious spring break time learning more about the graduate school application process, about how to “google” for the graduate program that provides the best match for their background and aspirations, and about post-graduate-school careers, both inside and outside academia. Look for a report in the next newsletter.

In December, Dr. A. James Hicks, NSF Program Director for the LSAMP Program, visited Oklahoma. He met in Oklahoma City with the presidents of the Alliance campuses in their capacity as the OK-LSAMP Governing Board, and he also attended an evening reception in Tulsa. We enjoyed hosting Dr. Hicks and trust that he also enjoyed our hospitality and learning about the successes in our Alliance.

Speaking of successes, I am extremely proud to report that Cammi Valdez, a Chemistry/Math graduate and LSAMP scholar from Southwestern Oklahoma State University, and now a PhD candidate in Chemical Biology at Harvard University, has been accepted as one of only 77 students nationwide to attend a meeting with Nobel Prize Laureates in Lindau, Germany, later this year. We

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will be talking to Cammi after her trip and will include a report in the Fall 2010 newsletter.

In closing, I'd like to quote Eileen Parks, an LSAMP scholar in the Biology Department at the University of Central Oklahoma who is working with faculty mentor Dr. William Caire. Referring to her research experience through the LSAMP program, she says, ***“Research is not like a class, it is work that matters to you and makes you feel a part of something.”*** Well said, Eileen! I couldn't have put it better myself. I wish all our scholars fulfilling experiences, both in the classroom and in their research activities, as they make progress toward their degrees in STEM disciplines and towards entry into graduate school.

Amazing Mentors

Brian Campbell, SWOSU professor and former Campus Coordinator, received his BS in



Elementary Education from the University of Wisconsin, Platteville. He received an MS in Science Education w/ Geology MS equivalent and a PhD in Science Education from the University of Iowa. His research interests include: geology and earth science applications for the classroom, nature and meaning of science, invertebrate paleontology of the early Paleozoic, environmental education for the classroom, reform of pre-service science education, cognitive

development, and constructivism: epistemological and pedagogical. Brian worked with OK-LSAMP for many years, but has “passed the torch.” He will continue to work with the Southwestern Summer Science and Mathematics Academy, a program for high ability high school students interested in math and science, while he seeks funds to investigate the Ordovician fauna of the Slick Hills in south central Oklahoma. Brian would like current and future scholars to know that ***“details matter.”***

Tim Hubin, SWOSU associate professor and current Campus Coordinator, received a BS in



Chemistry and a BS in Secondary Science Education from Kansas State University. He received his PhD in Chemistry from the University of Kansas. Tim'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. Tim advises current and future scholars to ***“do what you love.”***

Amazing Scholars



JeAnna Redd, UCO, participated in a Research Experience for Undergraduates (REU) in Turkey, Summer 2009. She conducted research on a project examining how honey bees handled artificial flowers which were meant to represent composite flowers in the natural world.

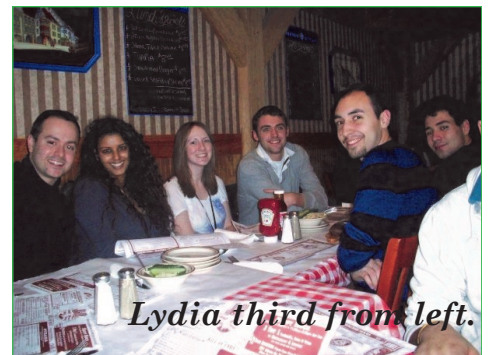


Sharome Goode, UCO, was selected to participate in the Significant Opportunities in Atmospheric Research & Science (SOARS) program. He visited with Rebecca Haacker-Santos at the 14th Annual Research Symposium. Her presentation sparked his interest to apply for the program. As a result, Sharome traveled to Boulder, Colorado, where he spent the summer conducting research at the University Corporation for Atmospheric Research.



Lydia Meador, OSU botany, microbiology, and biochemistry triple major, was selected as one of 24 students to participate in a winter short session at Brookhaven National Labs (BNL) in Upton, New York. She participated in an air pollution research project. In addition to the research, Lydia was able to attend lectures from top scientists, tour facilities such as: the RHIC (particle accelerator), National Synchrotron Light Source (NSLS), and

Center for Functional Nanomaterials (CFN). She attended the launch of a weather balloon, gave a short presentation about what research projects at BNL are of interest to her, and attended a luncheon with several BNL scientists. This was an awesome learning and networking experience.



Lydia third from left.

Bridge to the Doctorate



OK-LSAMP strives to encourage and offer opportunities for minority students to obtain their doctoral degrees in science, technology, engineering, and mathematics. Oklahoma State University has had two cohorts of BD Fellows, Cohorts I (2004) and III (2008). The University of Oklahoma has also had two cohorts of BD Fellows, Cohorts II (2005) and IV (2009). This brings the Oklahoma Alliance total to 48 BD Fellows.

Pictured L-R: 1st Row—Erik Gonzales, Shawna Hughes, Minh Ngo, C. Doug Yarholiar; 2nd Row—Marcus Benjamin, Richard Osei, Michael Henry, Jonathan Gonzales; 3rd Row—Scott Fine, Matthew Hough, Zachary Carpenter, Cody Pinkerman

BD Cohort IV, University of Oklahoma, 2009-2011



BRITTANIE ATKINSON

BS Institution: Langston University, Langston, Oklahoma

Major: Biochemistry and Molecular Biology, OUHSC

Career Goals: To perform research investigating mechanisms that are operative in the pathogenesis of autoimmune diseases.



LORNE D. JORDAN

BS Institution: Bowling Green State University, Bowling Green, Ohio

Major: Chemistry and Biochemistry

Career Goals: To become a leader in oncological research and contribute to the efforts of the National Cancer Institute.



CHRYSTAL MOORE

BS Institution: Northeastern State University, Tahlequah, Oklahoma

Major: Microbiology

Career Goals: To operate a research lab examining antibiotic resistance in bacteria.



CHRISTOPHER MACE

BS Institution: Oklahoma State University, Stillwater, Oklahoma

Major: Geophysics

Career Goals: To work in governmental research or the petroleum industry.



SHAWNA ONG

BS Institution: University of Oklahoma, Norman, Oklahoma

Major: Electrical Engineering

Career Goals: To further research experience and impact in the defense industry with an independent research division.

Amazing Alumni: Where Are They Now?

OK-LSAMP is proud of our Oklahoma Louis Stokes Alliance for Minority Participation alumni and would like to share some of their successes.



Jade Vardeman received his BS in Cell Biology from Northeastern State University and an MS in Entomology from Kansas State University. He now lives in North Carolina where he owns and operates his own business. Moses BioLogic LLC is a company that specializes in testing food packaging's resistance to insects. Jade has these words to share with current and future scholars.

"Attending Northeastern was the greatest time of my life and having a support net like OKAMP stays with me to this day. It is important for new students to understand that networking with peers and professionals within the university will benefit them far more than any financial compensation. The contacts and relations that are built via programs like OKAMP teaches one how to communicate and collaborate with the people around you. This type of interaction fosters a spirit of cooperation and a sense of belonging to something bigger than one's self. Being a motivated team player is a highly regarded trait among graduate school faculty and potential employers."

Paul De La Cerda, received a BS in Civil and Environmental Engineering and a MBA from Oklahoma State University. He also received an Executive Management degree from Darden Graduate School of Business Administration. Paul has been involved in the start-up of numerous companies and owns and operates his own marketing consulting firm, De La Cerda & Associates. He has been extremely involved in community organizations including Boys and Girls Club, Boy Scouts, and local Chambers of Commerce. Paul was selected as a Los Angeles 40-under-40 award winner and one of the 51 most influential people in Santa Clarita Valley (his hometown). He serves as the youngest and first Hispanic publicly elected School Board Member for the Saugus Union School District. In California, Paul currently serves as the Director of Operations & Marketing for his local newspaper, *The Signal*.



If you are an alum of OK-LSAMP, we want to hear from you. Please provide us with an update on the degrees you have earned, the projects you have completed, current projects of which you are part, and any advice you may have for current and future scholars. Thank you.

OK-LSAMP
Oklahoma State University
114 Thatcher Hall
Stillwater, OK 74078
kay.porter@okstate.edu; 405-744-6710
fara@okstate.edu; 405-744-7820
okamp@okstate.edu, fax 405-744-4202

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.

Southwestern Oklahoma State University (SWOSU)

From the humble beginnings in small Weatherford saloons to today's multi-site campuses of nearly 190 acres, Southwestern Oklahoma State University has truly enjoyed a memorable 108-year journey.

Through the years, SWOSU has expanded from a two-year preparatory school for teachers to a university that offers over 100 different majors and 1,000 different classes. Our proud tradition includes strong academic programs and quality faculty. SWOSU has 15 nationally-accredited academic programs—the most among Oklahoma's regional universities.

For over a century, SWOSU has prepared students to take on the challenges of the classroom and succeed. Around 4,700 students enroll each fall on the Weatherford campus and 500 students attend classes on the Sayre campus.

SWOSU is one of 25 institutions in the Oklahoma State System of Higher Education and one of six state-supported regional universities governed by the Regional University System of Oklahoma. The University's academic organization includes colleges of Arts and Sciences, Associate and Applied Programs-Sayre Campus, Pharmacy, and Professional and Graduate Studies.

The mission of SWOSU is to provide educational opportunities in higher education that meet the needs of the state and region; contribute to the educational, economic, and cultural environment; and support scholarly activity. Major areas of study on the Weatherford campus, associate degree programs on the Sayre campus, the general education curriculum, and participation in student activities/organizations provide opportunities for students to obtain skills, knowledge, and cultural appreciation that lead to productive lives and effective citizenship.



SWOSU Alumni Centennial Clock built in celebration of SWOSU's first 100 years



SWOSU's "Old Science Building" was built in 1909 and is on the National Register of Historic Places



Students planting the SWOSU flag at Milam Stadium

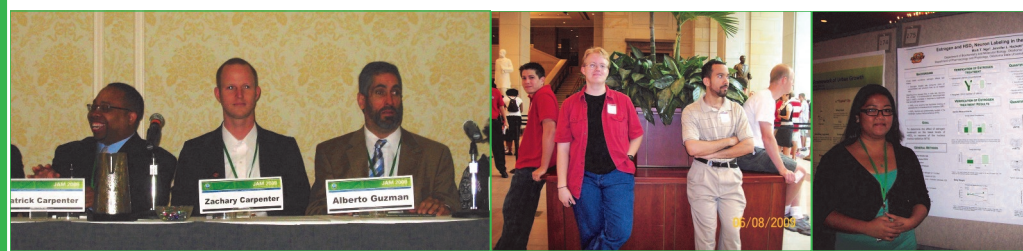
Amazing Events



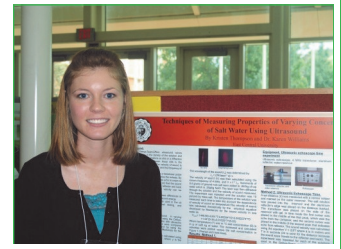
June 8-11, 2009, ten OSU Bridge to the Doctorate Fellows accompanied Gordon Emslie, Kay Porter, and Fara Williams to the National Science Foundation Human Resource Development Joint Annual Meeting (JAM) in Washington, D. C. Also in attendance were P. Simin Pulat and Susy Calonkey from OU. Minh Ngo presented a poster, and Zachary Carpenter participated on a panel of graduate students. In addition to conference proceedings, BD Fellows were given a tour of the Capitol Building and explored the D. C. area.



Pictured, clockwise from top left: Marcus Benjamin, Fara Williams (Grant Coordinator), Scott Fine, Matt Hough, Zachary Carpenter, Cody Pinkerman, Richard Osei, Minh Ngo, Kay Porter (Program Manager), and Doug Yarholar; OK-LSAMP poster presentation; BD Fellows after the graduate student panel session; Erik and Jonathan Gonzales with Kay Porter at dinner; Group after touring the Capitol Building; Minh Ngo's poster presentation; Doug, Cody, Marcus, and Zachary waiting for the Capitol tour; Zachary (middle) as a member of the graduate student panel.



Amazing Events



15th Annual Research Symposium

On Saturday, October 3, 2009, 33 faculty, 21 graduate students, 76 undergraduate students, 12 special guests and alumni, and 21 high school students attended the 15th Annual Research Symposium for a total of 179 attendants—up 50% from last year!



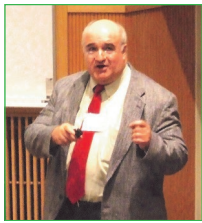
Daniel H. Wilson (TU alumnus) presented the keynote address. Other presentations included an alumni panel, two research ethics sessions, 20 oral presentations, and 50 posters.



Pictured Clockwise from top left: Daniel H. Wilson (keynote speaker), Tomica Blocker (BD Fellow), and Sofiri Hart speak on an alumni panel moderated by Earl Mitchell, Jr.; Jason Kirksey (Interim Assoc. VP for Institutional Diversity), Bonnie Gladden (volunteer), June Golliver (volunteer), and Deborah Evers (volunteer); Yvonne Pitts, LCDR and Navy recruits; Kristn Thompson (ECU Scholar); Alliance Meeting; Stephen McKeever (OSU VP for Research and Technology Transfer); Jason Kirksey, Katye Perry (OSU BD Evaluator), Earl Mitchell, Jr.; Carl Rutledge (ECU Coordinator); main session attendees; Daniel H.



Wilson; Kay Porter (Program Manager) presenting a Certificate of Appreciation to Brian Campbell [(SWOSU Coordinator) - Brian has "passed the torch," see p. 2]; group of Tulsa area high school students posed with Daniel H. Wilson (center); J. C. Diaz (TU Coordinator); Dr. Coleman (LU Mentor), Steven Harris and Tomica Blocker (BD Fellows); Gordon Emslie (OK-LSAMP PI and Dean, OSU Graduate College); Darron "DJ" Lamkin (OSU Scholar) and Paris Gamble (Attendee).



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Jerry Chris Elliott, “High Eagle,” Osage, served as a physicist for NASA for over 40 years. He is a distinguished recipient of the Presidential Medal of Freedom, the highest U.S. civilian honor, for duties as the lead Retrofire Officer at NASA Control Center during the aborted Apollo 13 space mission. Mr. Elliott was also instrumental in the first landing of mankind on the moon, July 20, 1969. He was a founding member of the American Indian Science and Engineering Society (AISES) and received the Ely Samuel Parker Award for lifetime career achievements and community service.



The OK-LSAMP at ECU sponsored Jerry Chris Elliott's talk to ECU faculty and students Monday, October 5, following a pizza party. Among the 37 people in the audience were OK-LSAMP Scholars, the Society of Physics Students, the ECU Astronomy club as well as other students, faculty and members of the public. His presentation was a motivational talk geared to young people encouraging them to strive to reach their dreams. Through his own example, he demonstrated how people could overcome their initial disadvantages and background to achieve success.



Oklahoma Research Day at Northeastern State University, Broken Arrow campus, November 13, 2009, was a great success. OK-LSAMP was represented by 17 of the 648 presentations. *Pictured:* **Kerstin Allison**, University of Central Oklahoma (*left*) and **Anthony Banks**, Southeastern Oklahoma State University (*right*).



Governing Board Meeting and Hicks Reception

On Tuesday, December 8, 2009, **Dr. A. James Hicks** presented at the OK-LSAMP Governing Board Meeting at the Oklahoma State Regents for Higher Education. Later that day, Cathy Newsome, OSU Center for Health Sciences professor, hosted a reception in honor of Dr. Hicks. Tulsa area teachers and principals were invited to meet and visit with Dr. Hicks about National Science Foundation opportunities for them and their students. Several programs in particular were highlighted. LSAMP and its branch program Bridge to the Doctorate was discussed. Dr. Hicks showed a video presentation from the Organization for Tropical Studies Costa Rica program. The Math and Science Partnership (MSP) Program and Robert Noyce Teacher Scholarship Program were also discussed as opportunities for high school students and teachers.

Amazing Opportunities

BE SURE TO LOCATE AND APPLY FOR SUMMER INTERNSHIP 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 of 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 useful way to network and meet people with whom future collaborations may develop. Below are 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.

- ⇒ University of Texas LSAMP Symposium, El Paso, TX, September 16-18, 2010.
- ⇒ Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference, Anaheim, CA, September 30-October 2, 2010.
- ⇒ New Mexico LSAMP Annual Conference, Las Cruces, NM, October 2, 2010.
- ⇒ **OK-LSAMP 16th Annual Research Symposium, Stillwater, OK, September 25, 2010.**
- ⇒ Oklahoma Academy of Science Fall Technical Meeting, Northeastern State University, Broken Arrow, OK, November 5, 2010.
- ⇒ Women of Color STEM Conference, Dallas, TX, October 28-30, 2010. www.womenofcolor.net. (Kay Porter is the Oklahoma Coordinator. If interested in attending, please contact her at 405-744-6710 or kay.porter@okstate.edu.)
- ⇒ American Indian Science and Engineering Society (AISES) National Conference, Albuquerque, NM, November 11-13, 2010.

Amazing Universities

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.

Oklahoma State University (OK-LSMAP Lead Institution)—osu.okstate.edu, Cameron University—www.cameron.edu, East Central University—ecok.edu, Langston University—www.lunet.edu, Northeastern State University—nsuok.edu, Northwestern Oklahoma State University—nwosu.edu, Southeastern Oklahoma State University—www.se.edu, Southwestern Oklahoma State University—www.swosu.edu, University of Central Oklahoma—www.uco.edu, University of Oklahoma—www.ou.edu/, University of Tulsa—www.utulsa.edu

Administration & Partners

ADMINISTRATION

Institutional Diversity
408 Whitehurst
Oklahoma State University
Stillwater, OK 74078
okamp@okstate.edu
www.ok-lsamp.okstate.edu

Gordon Emslie, Ph.D.

PI/Program Director
Assoc. VP, Research
Dean, Graduate College
202 Whitehurst Hall
Stillwater, OK 74078
(405) 744-6368
gordon.emslie@okstate.edu



Kay Porter

Program Manager
114 Thatcher Hall
Stillwater, OK 74078
(405) 744-6710
kay.porter@okstate.edu



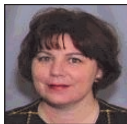
Fara Williams

Grant Coordinator
114 Thatcher Hall
Stillwater, OK 74078
(405) 744-7820
fara@okstate.edu



Rosemary Hayes, Ph.D.

Program Evaluator
Center for Institutional Data
Exchange and Analysis
1700 Asp Avenue, Room 131
Norman, OK 73072
(405) 325-2158
rhayes@ou.edu



PARTNERS

Cameron University (CU)

Phil Schoeder, Ph.D.
Physical Sciences Dept.
2800 W. Gore Blvd.
Lawton, OK 73505
(580) 581-2881
pschoeder@cameron.edu



East Central University (ECU)

Carl Rutledge, Ph.D.
Physics Dept., 109 Admin. Bldg.
1000 East 14th Street
Ada, OK 74820
(580) 559-5392
crutledge@mac.com



Langston University (LU)

Sharon Lewis, Ph.D.
Dept. of Chemistry
PO Box 1500
Langston, OK 73050
(405) 466-3316
salewis@lunet.edu



Northeastern State University (NSU)

Jody Buckholtz, Ph.D.
705 N. Grand Avenue
Tahlequah, OK 74464
(918) 456-5511 x3839
buckholtz@nsuok.edu



Northwestern Oklahoma State University (NWOSU)

Timothy Maharry, Ph.D.
Math Department
709 Oklahoma Blvd.
Alva, OK 73717
(580) 327-8583
tjmaharry@nwosu.edu



Southeastern Oklahoma State University (SOSU)

Tim Patton, Ph.D.
Biology Department
1405 N. 4th Street
Durant, OK 74701
(580) 745-2284
tpatton@se.edu



Southwestern Oklahoma State University (SWOSU)

Tim Hubin, Ph.D.
Chemistry & Physics Dept.
100 Campus Drive
Weatherford, OK 73096
(580) 774-3026
tim.hubin@swosu.edu



University of Central Oklahoma (UCO)

Gregory Wilson, Ph.D.
Nigh University Center, Rm 404
Edmond, OK 73034
(405) 974-3497
gwilson@uco.edu



University of Oklahoma (OU)

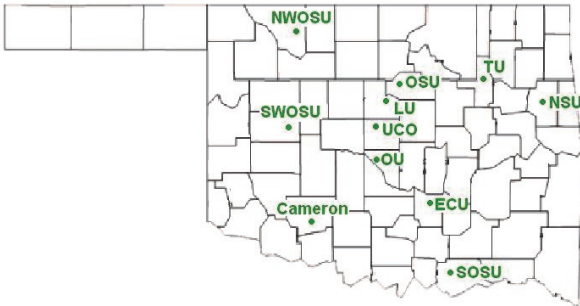
Simin Pulat, Ph.D.
202 W. Boyd CEC 107
Norman, OK 73019
(405) 325-1069
pulat@ou.edu



University of Tulsa (TU)

J. C. Diaz, Ph.D.
Comp. Sci. & Math Dept.
600 S. College Avenue
Tulsa, OK 74104
(918) 631-2228
diaz@utulsa.edu





Oklahoma Louis Stokes Alliance for Minority Participation in Science, Technology, Engineering, and Mathematics
Oklahoma State University, 114 Thatcher Hall, Stillwater, OK 74078, www.ok-lsamp.okstate.edu, okamp@okstate.edu

Our Mission: *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 from under-represented populations who receive degrees in Science, Technology, Engineering, and Mathematics (STEM) disciplines.*

Our Goals: *The primary goals of the OK-LSAMP program currently focus on the expansion of undergraduate research experiences, international experiences, intense graduate school preparation, and entrance into doctoral programs.*

If you know of an amazing person such as an outstanding mentor, excellent presenter or author, new doctoral graduate, award winner, former OK-LSAMP scholar, and/or just an especially dedicated person; **place** such as a campus or lab/research facility; or **event** such as symposiums, research days or conferences; **please let me know.** Be sure to include as many details as possible about the person, place, or event, and contact information for you in case I have questions or need more information. I look forward to creating future issues to keep everyone informed on the Amazing People, Places, and Events of the Oklahoma Louis Stokes Alliance for Minority Participation in Science, Technology, Engineering, and Mathematics.

Thank you. Fara Williams-

If you have questions, comments, or suggestions for The Link,
please call 405-744-7820 or e-mail fara@okstate.edu.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation or Oklahoma State University.