Greetings from the Director

I want to take this opportunity to thank all of the partners for the excellent work that you do. I especially appreciate your patience during the transition experienced at OSU-Stillwater. Your patience, input and steadfast leadership has made it possible for us to meet all reporting deadlines and secure funding for another year. Thank you.

I am looking forward to this next academic year. The September 20th symposium will provide an excellent opportunity for our students and mentors to demonstrate their work. I anticipate learning more about a number of outstanding research projects. It is also my hope that Dr. Hicks will be able to join us at this time. Now is the time for us to imagine the next steps in our journey. We will have some very important decisions to make regarding the life of our partnership and this most important work. I look forward to the conversations.

Cheers!
Cornell Thomas

Amazing Staff

Behind every amazing program stands the many amazing people who make the program successful. The staff of OK-LSAMP STEM are extremely knowledgeable, hard working and dedicated. In this issue, we say goodbye to Dr. Myron Cherry and Dr. Ted Snider.

Myron Cherry, Ph.D., moved from East Tennessee in 1986 to become an assistant professor of chemistry at Northeastern State University (NSU). In 1989, Dr. Cherry became chairman of that department and in 2004 became chairman of the newly formed Department of Natural Sciences which comprises all of the sciences.

Dr. Cherry has been with OK-LSAMP since its beginning in the early 1990s when he helped plan and implement the program statewide. On May 9, 2008, Dr. Cherry returned to East Tennessee where he and his wife will raise horses.

We will miss him and all he brought to the Alliance. However, we are glad to welcome his replacement in the OK-LSAMP Program as campus coordinator at NSU, Dr. Jody Buckholtz.

Ted Snider, Ph.D., came from Pittsburgh, Kansas. After receiving his Masters degree from Pittsburg State University, he moved to Wilburton, Oklahoma, where he became a faculty member at Eastern Oklahoma State College. Dr. Snider has been a faculty member at Cameron University for 40 years. He, like Dr. Cherry, was a part of OK-LSAMP since the early 1990’s. In May 2008, Dr. Snider decided to retire.

We will miss Dr. Snider and his wonderful sense of humor (see his retirement announcement on page 2).
Amazing Mentors

Ramesh Sharda, Ph.D., Oklahoma State University (OSU), has a Bachelor of English Degree from the University of Udaipur, a Master of Science Degree from Ohio State University, and a Master of Business Degree and Ph.D. from the University of Wisconsin-Madison. He is currently the Conoco/DuPont Chair in Management Technology and a Regents Professor of Management Science and Information Systems (MSIS). Dr. Sharda was instrumental in the development of the Master of Science in Telecommunications Management Program at OSU and serves as the Director of the Institute of Research in Information Systems (IRIS).

“The mission of IRIS is to enhance faculty research productivity and visibility by providing opportunities for collaborative research and to serve as a sounding board for improved dialog between industry and academics. Additionally, IRIS hosts distinguished guest speakers and conferences for improved networking with other faculty.

Major research emphases of IRIS faculty include data-mining, collaborative systems and learning, knowledge management, enterprise systems, network design and security. The research methodologies include analytical modeling and empirical studies, as well as systems development. Several companies and government agencies fund IRIS faculty research.”

Travis Griffin, was born and raised in Shuqualak, Mississippi. Participating in science fairs and technology competitions, Travis developed a passion for science and technology education at the age of ten. After graduating from Noxubee County High School, Travis enrolled at Mississippi State University where he became a Louis Stokes Scholar. He received his Bachelors degree in Software Engineering in December 2003, and began graduate school at the University of Southern Mississippi where he earned a Masters degree in Higher Education in May 2004. After completion of this degree, Travis worked in the software development industry at BearingPoint, Inc in Hattiesburg, Mississippi, while also serving as the College of Science and Technology Outreach Coordinator at the University of Southern Mississippi. After three years, Travis moved to Stillwater where he currently serves as Coordinator for the Multicultural Engineering Program at Oklahoma State University.

Travis Griffin is a motivator and role-model. His passion for engineering excellence is very influential and beneficial to many upcoming young engineers and innovators.

Amazing Mentee

Michael Henry (OSU), OK-LSAMP Scholar, graduated in December 2007 with a Bachelors degree in MSIS. Under the mentorship of Dr. Sharda, Michael conducted research on the use of neural networks. This research is biologically inspired in that it looks for pattern recognition. Several companies and government agencies fund IRIS faculty research.

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Amazing Spring 2008
Graduates: What is next?
OK-LSAMP is pleased to present 37 graduates for Spring 2008.

Tomica Blocker (LU), Natural Resource Management, is exploring graduate school options.
Zack Broderick (ECU), Physics, will work as a pharmacy tech while awaiting responses from medical physics programs.
Christa Burks (TU), Information Systems Technology.
Matthew Butler (TU), Computer Science.
Jason Chandler (LU), Chemistry, is exploring graduate school options.
Casey Chatfield (ECU), Biology, will be attending med tech school.
Megan Duke (UCO), Chemistry & Math.
Greg Falling (NSU), Engineering Physics.
Scott Fine (OSU), Plant and Soil Sciences, will be continuing at OSU for a Masters degree.
Alex Flores (SEOSU), Engineering, is seeking employment.
Chase Gann (NSU), Biology.
Jennifer Hackett (OSU), Biochemistry & Molecular Biology, will be attending Kansas University for a Masters degree.
Matt Hough (OSU), Plant and Soil Sciences, will be continuing at OSU for a Masters degree.
Miranda Knight-Brown (NSU), Biology.
Aimee Magrath (OSU), Biochemistry & Molecular Biology is interviewing for a Pharmaceutical Sales position.

Shamara Manora (OU), (pictured) Engineering, is a senior who has explored various areas of chemical engineering and participated in a variety of research opportunities. Most recently, she researched the genetic link to lupus nephritis among African Americans. Last summer, Shamara interned with ExxonMobil in Baton Rouge, Louisiana, where she worked with the production of gasoline. Shamara presented her research in multiple arenas, including the OSU Research Symposium and the Ronald McNair National Conference in Maryland. Her honors include the National Society of Black Engineers' Senior of the Year for 2007. Shamara will work in industry before beginning graduate school for an advanced degree in Health Care Administration/Immunology.

Nathaniel Manzo (OU), Industrial Engineering, will work for Fujitsu as a Logistics Analyst.
Waylon Marler (NSU), Biology.
Annette Moulder (CU), Multimedia Design, is listed in Who’s Who Among Students in American Colleges and Universities and received a Top 10 Non-Traditional Student Award. She will be attending Brigham Young University.

Audrey Myers (ECU), Chemistry, will be attending OU for a Ph.D.
Minh Ngo (OSU), Biochemistry & Molecular Biology will intern with OSU Center for Health Sciences.
Cherie Ognibene (LU), Biology.
Cody Pinkerman (OSU), Mechanical and Aerospace Engineering, will continue at OSU for a Masters degree while working for Frontier Electronic Systems.

ViaNey Price (LU), Biology, will enter a Physical Therapy Ph.D. program at Langston University.
Andrea Rendon (ECU), Biology, will seek employment but includes a graduate degree in her future plans.
Laticia Rivera (OSU), Biochemistry & Molecular Biology, will be attending Kansas University for a Masters degree.
Pablo Rodriguez (CU), Biology, will research this summer & plans to attend graduate school in 2009.
Kariel Ross (LU), Biology.
Elia Smith (NSU), Chemistry.
Jacob Spring (OU), Electrical and Computer Engineering, will intern at Sandia National Labs before continuing at Texas A&M.
David Supeck (SWOSU), Biochemistry, will be attending OU for a Ph.D..

Cammi Valdez (SWOSU), Chemistry with Statistics minor & Mathematics with Physical Science minor, will be attending Harvard for a Ph.D. in Chemical Biology.
Michael Walden (OU), Industrial Engineering, will intern with Schlumberger before attending graduate school in the fall. Michael was named outstanding junior and senior in Industrial Engineering.

Steven Brett Walker (OSU), Mechanical Engineering, will continue his education at the University of Illinois. Brett was chosen as the OSU Multicultural Engineering Program (MEP) Student of the Year for 2007-2008.
Areisha Wilbert (UCO), Biology.
Uduak Williams (UCO), Biology.
Scott Zacharie (OU), Mechanical Engineering, will continue at OU after interning with ExxonMobil.
Cara Cowan-Watts, received her Bachelors degree in Mechanical Engineering from Oklahoma State University in December 1997. In 1998, while working for Hewlett-Packard, she pursued a Masters degree in Electrical Engineering at the University of Colorado, Colorado Springs. In 1999, Cara began working for Wiltel Communications, Tulsa, Oklahoma, and in May 2002, she completed a Masters degree in Telecommunications Management at Oklahoma State University. In 2004, Cara returned to Oklahoma State University to become a Bridge to the Doctorate Fellow. As a Fellow, she is currently working on her Ph.D. in Biosystems Engineering and is projected to complete all requirements this summer. Dr. Dan Storm serves as Cara’s mentor. Her research focuses on the improvement of numerical water quality standards for Tribal Nations. In addition to her research and academic pursuits, Cara was elected as a Cherokee Tribal Representative for District 7—Will Rogers (Rogers County, Oklahoma) and will serve as Deputy Speaker of the Cherokee Tribal Council for the 2007-2011 term. Cara and her brother, Brett Cowan—a former BD Fellow who received his Ph.D., May 2007—are founding leaders of the Native American Alumni Association at Oklahoma State University.

For more, go to www.caracowan.com.

Felix De La Cruz received his Engineering Bachelors degree from Oklahoma State University in May 2007. He is currently a Bridge to the Doctorate Fellow at the University of Oklahoma working on advanced degrees in Mechanical Engineering. Being an OK-LSAMP Scholar created an opportunity for Felix to become an active participant in the Composite Research Group at the University of Oklahoma. The OK-LSAMP Program also encouraged him to continue to graduate school. “In my mind, I always knew I would go to college, but my aspirations did not amount to more than obtaining an undergraduate degree. To me this was an ambitious goal. Who knew I would be given the opportunity to pursue a graduate degree?” Felix offers this advice to current and future undergraduates. “Deciding to pursue an advanced engineering degree is the best decision I have ever made. Attaining a Masters, and eventually, a Ph.D. in Mechanical Engineering will beckon opportunities to me which I would otherwise be unqualified to perform had I not chosen to continue my education.” Felix is active in the Multicultural Engineering Program and the Composites Research Group on the University of Oklahoma campus. Occasionally, he volunteers for the College of Engineering. In his free time, Felix enjoys exercising and camping and has enjoyed camping trips to Oregon, Utah, Colorado, New Mexico, and last summer he spent time in our nation’s capitol—Washington, D.C.
Zachary Carpenter

Zachary Carpenter, University of Tulsa (TU), received his Bachelor’s degree in Electrical Engineering in December 2005. He is completing requirements for his Master’s degree and working part time at Level 3 Communications in Tulsa. For his thesis, Zachary is building an intelligent water fountain exhibit (pictured above) that will be installed in the Engineering College at the University of Tulsa as a permanent exhibit. He plans to enter a Ph.D. program at TU next year.

Sidney Carter

Sidney Carter, Jr., Oklahoma State University, received his Bachelor’s degree in Biochemistry & Molecular Biology in May 2001. Currently, Sidney is in Sweden where he earned an Alternative Swedish Degree and is working on a Doctoral Degree in Developmental Biology / Genetics. Sidney’s advice for current OK-LSAMP scholars who are debating attending graduate school or gainful employment, is: “For those close to graduation, I am aware that choosing between job-searching and graduate school can be difficult. There are so many factors involved in such a decision, including practical matters such as the job market or funding for graduate school, as well as personal desires, goals and priorities that can vary greatly from person to person. In light of such complexity, I think it next to impossible to offer any simple prescriptive advice that would be truly general in its applicability. That which I can offer comes more from a philosophical standpoint and is probably most suited to those who have done lots of hard thinking, considered all that they can, and are yet still riding the fence. Education is a privilege that we, the target demographic of the OKAMP program, have not always had easy access to. With this in mind, I view academic achievement as not only a means to better ourselves, but also as a powerful mechanism to help in the establishment of a positive legacy for our respective communities. Graduate school may not be for everyone, and there’s nothing wrong with that. We are each our own person. But for those truly split between options, I would always suggest to continue to push ahead and test your limits.”

Heather Hannah

Heather Hannah, Ph.D., received her Bachelor’s degree in Math from East Central University (ECU) in 2002. She attended the University of Notre Dame where she was a part of EDGE (Enhancing Diversity in Graduate Education): A Mathematics Program for Women—sponsored in part by NSF. Heather received her Ph.D. in 2007 and has returned to ECU as an Assistant Professor. Her areas of interest are partial differential equations, harmonic analysis, differential geometry, and undergraduate research. She is the advisor/mentor for the ECU Math Club as well as a McNair Mentor and a Project NExT (New Experiences in Teaching) Fellow sponsored by the Mathematical Association of America (MAA). Recently, Heather received an ECU First Time Grant Writer Award and presented at the 2008 American Institute of Mathematical Sciences (AIMS) conference in Arlington, Texas. Heather advises scholars to “keep trying to meet your goals, because someday you WILL reach them.”

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

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 and the projects you have completed as well as your current projects and interests. Thank you.

114 Thatcher Hall, Stillwater, OK 74078
kay.porter@okstate.edu; 405-744-6710
fara@okstate.edu; 405-744-7820
okamp@okstate.edu

OK-LSAMP is a proud partner of the National Science Foundation's Louis Stokes Alliance for Minority Participation Program.
The University of Tulsa
Preparing Students for the Challenges and Opportunities of Their Time

As the University of Tulsa developed into one of the nation's top 100-ranked universities, it has, not accidentally, also grown to be one of the best institutes of higher learning and diversity. The Princeton Review, which surveys students, ranks TU eleventh in the nation for race and class relations out of more than 300 colleges and universities.

TU is proud of its 2007 freshman class of 656 students for many reasons, but one of the most important is its diversity. More than 30 percent of TU's latest freshmen class came from minority groups and countries other than the United States.

“Many cultures, traditions and belief systems come together on our campus,” said TU President Steadman Upham. “The power of pooled differences is an essential asset and a priority for the University of Tulsa because it enriches our understanding of the world.”

TU is home to students from nearly 60 countries, as well as many cultural and faith traditions in the United States. This diverse population energizes the campus community in the classroom and beyond. More than 20 multicultural student organizations promote awareness and celebrate diversity through visiting speakers, exhibitions and performances, feasts and religious observations.

The university also emphasizes the importance of study abroad through its Center for Global Education. The goal is that each and every TU student will have an international study experience – not only as a personal adventure, but also as an essential part of their preparation for a global future.

An example of that initiative is TU's innovative NanoJapan program, an undergraduate research and study abroad program for engineering students. NanoJapan was recently chosen for the prestigious 2008 Andrew Heiskell Award for Innovation in International Education in the highly competitive "study abroad" category. NanoJapan combines aspects of a traditional study abroad program with intensive nanotechnology research in order to prepare U.S. engineering undergraduates for work in the international arena.

The emphasis on diversity within TU is increasingly evident in its curriculum, as well. From engineering to the humanities, the university is broadening its global vision and infusing global perspectives across campus. As an illustration of these updates, TU recently added courses in Hebrew, Arabic, Portuguese, Japanese and Chinese. With these few strategic additions, TU will provide students with the opportunity of learning how to communicate with 90 percent of the world's population.

From freshman block courses examining topics as diverse as the origins of war and jazz in American society to the experience of a Native American pow-wow or a Passover Seder, life on the TU campus has a growing national reputation for inclusion.

The university is proud of this recognition and what it says about the role of a TU education in preparing students for the challenges and opportunities of their time. TU has combined its belief in the power of diversity and its commitment to excellence in engineering education through its proud involvement in OK-LSAMP STEM.
The summer institute also offers a computer animation track that emphasizes the computer modeling of science and engineering applications. Students use 3ds Max and Maya animation software for the development of 3-D models of their designs.

As part of the program, participants make oral presentations of their achievements, practicing valuable communication skills. By the end of the program, participants gain experience with various engineering tools, including machinery, 3-D design, and programming of autonomous robots. This program inspires the participants to invent and engineer to the best of their best abilities.

Related to the Junior Robotics Institute, TU faculty and students have worked with area high schools for 10 years in providing support for entries into FIRST robotics competitions.

TU traveled with Booker T. Washington High School and Jenks High School teams to the regional FIRST Overdrive Robotics Competition in Oklahoma City, March 20–22. In 2007, the Booker T. Washington team won the Website Award for the Kansas City regional.

To view additional pictures of the Tulsa Summer Junior Robotics Institute, go to:
www.ens.utulsa.edu/first/Jenks/photo/competition/
www.ens.utulsa.edu/FIRST/BTW/photos.php
www.flickr.com/groups/62471979@NOO/pool/

Research Ethics

The University of Tulsa has developed a college course on research ethics. In addition, OK-LSAMP hosted Research Ethics Seminars on the campuses of East Central University (ECU) and Oklahoma State University (OSU). Dr. Carl Rutledge and Dr. Karen Williams from ECU created and presented information on experimental techniques and treatment of data values, publication (credit due, authorship, openness), plagiarism, misconduct and error in science, responding to ethics violations, discussion of case studies, and the scientist in society. Case studies from “On Being a Scientist: Responsible Conduct in Research” were used to generate discussion among the audience. The book was created by the National Academy of Sciences and “may be reproduced solely for educational purposes without the written permission of the National Academy of Sciences.” (www.nap.edu/readingroom/books/obas/)

An Ethics Seminar was held at East Central University on Tuesday, January 22, 2008. Fifty-two people were in attendance including six OK-LSAMP Scholars and five ECU faculty. An Ethics Seminar was held at Oklahoma State University on Friday, February 15, 2008. Thirty people were in attendance including ten OK-LSAMP Scholars and three OSU faculty.
Future Amazing Events

- OK-LSAMP 14th Annual Research Symposium, September 20, 2008, Oklahoma State University, Stillwater, Oklahoma; for more information: http://www.ok-lsamp.okstate.edu/allianceactiv.html
- Research Day at the Capitol, November 11, 2008, Northeastern State University, Broken Arrow, Oklahoma

Administration & Partners

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<th>ADMINISTRATION</th>
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<tr>
<td>Institutional Diversity, 408 Whitehurst OK-LSAMP, 114 Thatcher Hall Oklahoma State University Stillwater, OK 74078</td>
<td>Cameron University (CU)</td>
<td>Lawton, OK (580) 581-2890 <a href="mailto:teds@cameron.edu">teds@cameron.edu</a></td>
</tr>
<tr>
<td></td>
<td>East Central University (ECU)</td>
<td>Carl Rutledge, Ph.D. Ada, OK (580) 559-5392 <a href="mailto:crutledge@mac.com">crutledge@mac.com</a></td>
</tr>
<tr>
<td></td>
<td>Langston University (LU)</td>
<td>Sharon Lewis, Ph.D. Langston, OK (405) 466-3316 <a href="mailto:salewis@lunet.edu">salewis@lunet.edu</a></td>
</tr>
<tr>
<td></td>
<td>Northeastern State University (NSU)</td>
<td>Jody Buckholtz, Ph.D. Tahlequah, OK (918) 456-5511 x3839 <a href="mailto:buckholt@nsuok.edu">buckholt@nsuok.edu</a></td>
</tr>
<tr>
<td></td>
<td>Northwestern Oklahoma State University (NWOSU)</td>
<td>Timothy J. Maharry, Ph.D. Alva, OK (580) 327-8583 <a href="mailto:tjmaharry@nwosu.edu">tjmaharry@nwosu.edu</a></td>
</tr>
<tr>
<td></td>
<td>Southeastern Oklahoma State University (SOSU)</td>
<td>Tim Patton, Ph.D. Durant, OK (580) 745-2284 <a href="mailto:tpatton@sosu.edu">tpatton@sosu.edu</a></td>
</tr>
<tr>
<td></td>
<td>Southwestern Oklahoma State University (SWOSU)</td>
<td>Brian Campbell, Ph.D. Weatherford, OK (580) 774-3118 <a href="mailto:brian.campbell@swosu.edu">brian.campbell@swosu.edu</a></td>
</tr>
<tr>
<td></td>
<td>University of Central Oklahoma (UCO)</td>
<td>Gregory Wilson, Ph.D. Edmond, OK (405) 974-3497 <a href="mailto:gwilson@ucok.edu">gwilson@ucok.edu</a></td>
</tr>
<tr>
<td></td>
<td>University of Oklahoma (OU)</td>
<td>Simin Pulat, Ph.D. Norman, OK (405) 325-1069 <a href="mailto:pulat@ou.edu">pulat@ou.edu</a></td>
</tr>
<tr>
<td></td>
<td>University of Tulsa (TU)</td>
<td>J. C. Diaz, Ph.D. Tulsa, OK (918) 631-2228 <a href="mailto:diaz@utulsa.edu">diaz@utulsa.edu</a></td>
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<tr>
<td>Cornell Thomas, EdD</td>
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<tr>
<td>VP for Institutional Diversity PI/Program Director Stillwater, OK (405) 744-9154 <a href="mailto:c.thomas@okstate.edu">c.thomas@okstate.edu</a></td>
<td></td>
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</tr>
<tr>
<td>Kay Porter</td>
<td></td>
<td></td>
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<tr>
<td>Program Manager Stillwater, OK (405) 744-6710 <a href="mailto:kay.porter@okstate.edu">kay.porter@okstate.edu</a></td>
<td></td>
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</tr>
<tr>
<td>Fara Williams</td>
<td></td>
<td></td>
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<tr>
<td>Program Data Manager Stillwater, OK (405) 744-7820 <a href="mailto:fara@okstate.edu">fara@okstate.edu</a></td>
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<tr>
<td>Rosemary Hayes, Ph.D.</td>
<td></td>
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<tr>
<td>Program Evaluator Norman, OK (405) 325-2158 <a href="mailto:rhayes@ou.edu">rhayes@ou.edu</a></td>
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If you know of an amazing: person such as an outstanding mentor, excellent presenter/author, new doctorate grad, award winner, former LS-OKAMP student, and/or just an especially dedicated person; place such as a campus, lab/research facility, or locations of conferences and/or symposiums; or event such as symposiums, research days, conferences, specific presentations, or other places of interest; 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.

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