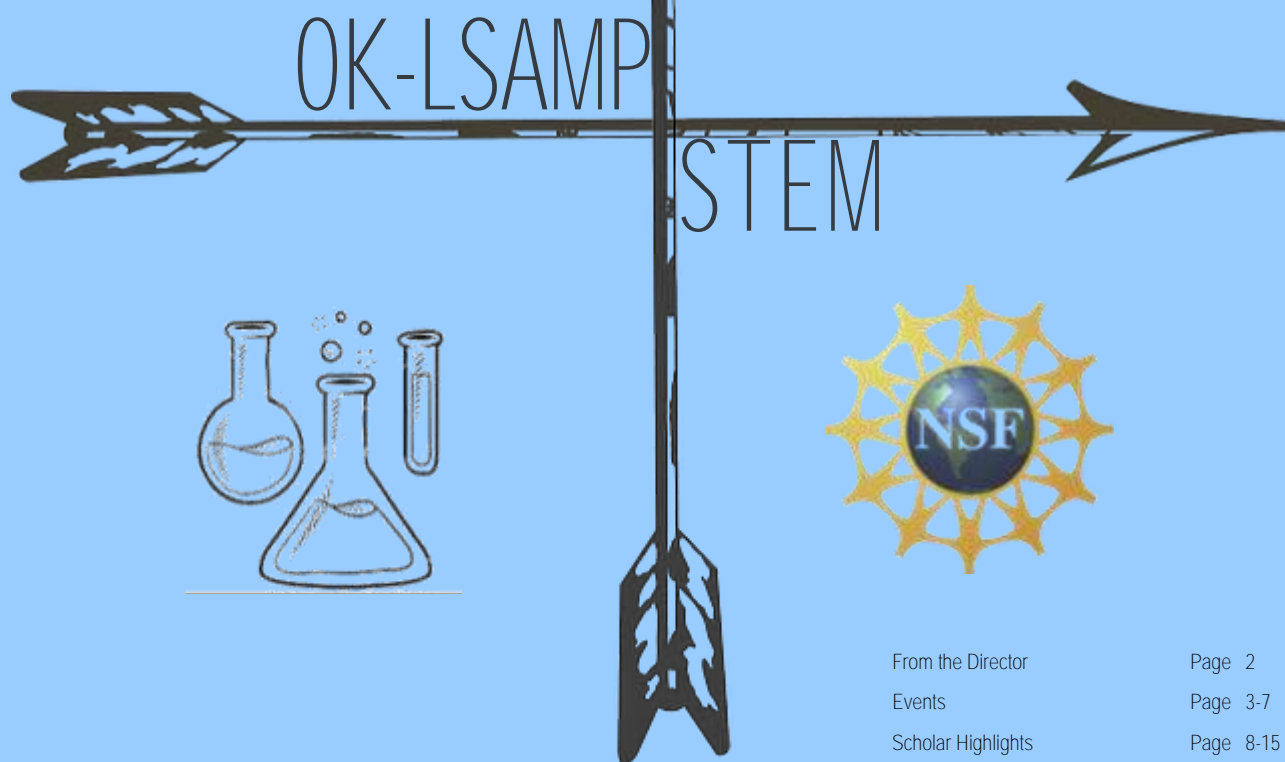


THE LINK



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Spring 2014 – Spring 2015

Dr. Jason F. Kirksey, Oklahoma State University Vice President for Institutional Diversity and Principal Investigator for the OK-LSAMP and Bridge to the Doctorate (BD) programs has been extremely busy this past year. Therefore, to help him out, we would like to introduce you to him as others in the OSU community know him.

OSU THE COWBOY WAY

THE TERROR SQUAD

As an associate professor of political science for 20 years, Kirksey had a reputation as a challenging teacher. His class was so tough that the O'Colly named him to a group of professors known as "The Terror Squad." Kirksey laughs, explaining the classes weren't tough for the sake of being hard. If you took his class, he was going to make sure you learned the material. "Education is not a spectator sport — you have to put something into it to get something out. If you could come here and breeze through, then there would be a lot more folks doing it," he says.

CELEBRATING DIVERSITY

For the third year in a row, Kirksey has led a team winning the *INSIGHT* Higher Education Excellence in Diversity Award. OSU is the state's only institution honored to receive this prestigious national award. With an unwavering commitment to inclusion, OSU is ranked among the Top 100 degree producers for Native American, African American, Asian American, and Latino students by *Diverse* magazine. OSU again leads the nation in the number of Native Americans earning a college degree.

With the initials JFK, the Oklahoma State University Vice President and Chief Diversity Officer **Jason Fitzgerald Kirksey** says his mother expected greatness from her boys.

"My mother was a fan of President Kennedy and his commitment to civil rights to make the world a better place," Kirksey says.

OSU's JFK beat the odds growing up as "a poor Black kid in inner-city Denver." His parents voluntarily bused him to an all-white elementary school, which had greater resources and provided a more challenging education.

"My parents always encouraged my two older brothers and me to be the best people we could be and strive to excel at whatever we chose to do," Kirksey says.

The early exposure to those who were different than him strengthened his ability to communicate with all kinds of people.



PHOTO / PHEL SHOOKLEY

LOYAL AND TRUE

Although the Oklahoma State University campus is much more diverse now, Kirksey says he was welcomed as a freshman coming from Colorado over 30 years ago. He wears a university lapel pin as a proud alumnus. For him, OSU has always been a community that was very supportive with the best interests of the students and "I didn't get to where I am without a lot of people supporting me."


GATOR BOWL WATCH

On the Cowboys football team, Kirksey earned a 1985 Gator Bowl watch, practicing on the scout team as a walk-on with superstars Thurman Thomas and Mike Gundy. Although Kirksey's playing days ended his sophomore year, academic work kept him in the game serving on the review board of the *Journal for the Study of Sports and Athletes in Higher Education*.

RESEARCH AWARDS

As the principal investigator for the Oklahoma Louis Stokes Alliance for Minority Participation, which is a consortium of 11 universities in Oklahoma working together to develop programs aimed at increasing minority student involvement in higher education and other career goals, Kirksey is administering a \$3.4 million National Science Foundation grant. The five-year award is in the fifth phase of a program that works to increase the number of students from underrepresented populations who receive degrees in science, technology, engineering and mathematics disciplines.

He earned bachelor's degrees in economics and political science and a master's degree in political science, all from OSU. He "fell in love with teaching" and went on to earn a Ph.D. in political science from the University of New Orleans, joining the OSU faculty in 1995.

"OSU has been a great experience ... provided opportunities to grow that I wouldn't have had through the years," he says. 

EVENTS

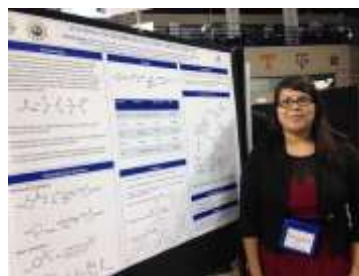
Scholars, fellows, mentors, and program staff traveled near and far in order to present research and participate in professional conferences.

NCUR 2014



The National Conference on Undergraduate Research (NCUR) was held at the University of Kentucky in Lexington, Kentucky, April 3-5, 2014. Seven OK-LSAMP Scholars made nine presentations. Scholars also visited Keenland Race Track, attended a concert by Sundry Best, and explored the Lexington area. Scholars who presented include: **Zoe Austin**, OSU, presented a poster. **ShaRonda Carson**, UCO, presented a poster. **Maria Casteneda**, TU, presented a poster. **TJ Johnson**, TU, presented a poster and gave an oral presentation. **Mason Linscott**, TU, gave an oral presentation. **Amanda Mathias**, OSU, presented a poster and gave an oral presentation. **Amber Washington**, OSU, presented a poster.

Pictured left to right: TJ Johnson, Zoe Austin, Maria Casteneda, Amanda Mathias and Amber Washington.



Cherokee College Preparatory Institute

Oklahoma State University was proud to host the third annual Cherokee College Preparatory Institute. The Cherokee Nation Foundation (CNF) supported 54 high school juniors and seniors to travel to Stillwater, Oklahoma, for a week of intense college prep seminars and workshops. The Division of Institutional Diversity provided support as well. Topics included: academic preparation, financial aid, the college application process, standardized tests, and time management. By the end of the week, participants had to: 1) write a personal statement/entrance essay; 2) create an activities list; and 3) research/select at least five institutions in which they were interested in attending.

Admission counselors from across the nation, as well as Heather Sourjohn from CNF and Fara Williams from OK-LSAMP, served as counselors and mentors during the week. Institutions represented included: Bacone College, Dartmouth College, Duke University, North Carolina State University, Oklahoma State University, Rogers State University, Stanford University, the University of Arkansas, the University of Central Oklahoma, the University of Pennsylvania, and Yale University.



Symposium 2014



Dr. Hicks visits with Dr. Kirksey.



Dr. Walker and Dr. Kirksey.

The 20th Annual Research Symposium was held on Saturday, September 27, 2014. We celebrated 20 years of increasing the number of students from underrepresented populations who receive degrees in STEM disciplines! OK-LSAMP surprised **Dr. Earl Mitchell Jr.** by presenting him an award for his dedication to OK-LSAMP and programs with similar goals. **Dr. A. James Hicks**, NSF LSAMP program director, visited with attendees and provided words of encouragement for the Scholars and BD Fellows.

Dr. S. Brett Walker, former OK-LSAMP Scholar, provided the keynote address. Dr. Walker is co-founder and CEO of *Electroninks*, a company that is revolutionizing the way electronics is taught in school. Electroninks created Circuit Scribe - a pen that will write with conductive ink. Electroninks' Kickstarter video was extremely well received. Dr. Walker was also selected as one of **30 under 30** in manufacturing and industry by *Forbes magazine*.



Dr. Hicks speaks to the audience.



Dr. Kirksey, Dr. Mitchell, and Dr. Hicks.



Dr. Hicks, Dr. Walker, and Dr. Kirksey.



Dr. Sandefur, OSU Provost.



Wesley Co and Dr. Kirksey.



There were 236 faculty, staff, students, and special guests who attended the event. There were 71 posters and 26 oral presentations. **Wesley Co**, former OK-LSAMP Scholar and Owens Corning general manager, gave a brief presentation. An OSU Welcome was presented by **Dr. Gary Sandefur**, provost and senior vice president.

Prizes were awarded for first, second, and third place presentations. The winners were:

Posters: first - **Laura Asaro**, ECU; first - **Linzi Thompson**, ECU; second - **Adrian Saenz**, OSU; second - **Chelsea Spencer**, UCO; third - **Alex Guerra**, **Peter George** and **Seamus Hunt**, OU.

Oral Presentations: first - **Katy Riojas**, TU; second - **Roosevelt Matthews**, CU; second - **Maeghan Murie-Harting**, OSU; second - **Cortez Williams**, OU; third - **Alex Moreno**, OU.



Dr. Walker gives the keynote address.



Dr. Mitchell receives his award from Dr. Hicks while Dr. Mitchell's family (wife Bernice, daughter Karen, and granddaughter Ciara) looks on.

OKLAHOMA LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION



20th Annual Research Symposium



September 27, 2014
Stillwater, OK



Dr. Earl D. Mitchell Jr.
Founding Principal Investigator



Dr. Jason F. Kirksey
Current Principal Investigator

Celebrating 20 years
of increasing the quality and quantity of scholars in
Science, Technology, Engineering,
and Mathematics (STEM) disciplines

Scholars in Science: Native American Path

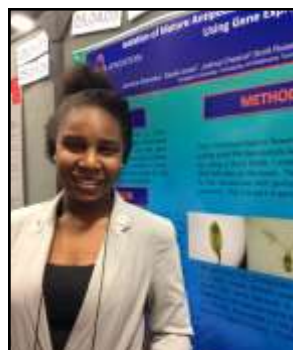
The Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference was October 15-19, 2014, in Los Angeles, CA. Twenty-eight students from OSU, Langston University, and Northeastern State University participated in the Scholars in Science: Native American Path (SSNAP) program. The SSNAP program is in its third year and is a joint collaboration between OSU, OK-LSAMP and SACNAS. Students traveling to the conference presented research posters, gave oral presentations, participated in seminars, and visited with recruiters from industry and graduate schools.

Three students (*pictured below*) were recognized at the conference. **Shane Morrison**, zoology doctoral student, was one of 10 students honored for his oral presentation in environmental sciences. **Grant Williams**, physics junior, and **Amber Anderson**, microbiology and molecular genetics senior, were recognized for their outstanding poster presentations in the physics and health categories. The conference featured more than 1,200 posters and over 100 oral presentations.

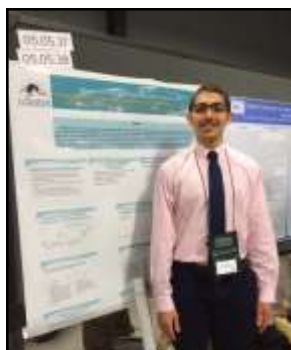


Oklahoma Research Day

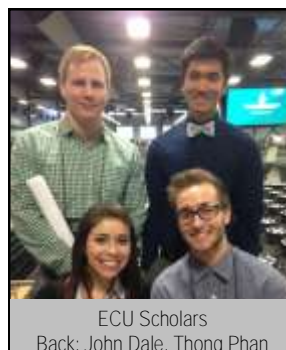
Northeastern State University hosted Oklahoma Research Day on March 13, 2015, in Tahlequah. The event began in 1999 on the UCO campus with 223 posters. Today, the event boasts over 1,500 registered students, faculty and guests. Oklahoma Research Day is considered the “premier” research event in the state, created to provide an opportunity for students and faculty from multiple institutions to interact with their counterparts in their respective disciplines. Fifty research posters were exhibited by OK-LSAMP Scholars from Cameron University, East Central University, Langston University, Oklahoma State University, Southeastern Oklahoma State University, Southwestern Oklahoma State University, and the University of Central Oklahoma.



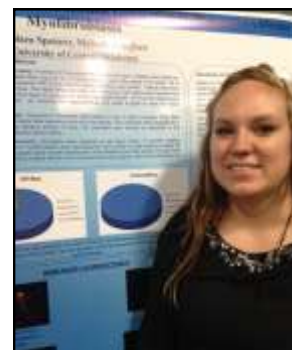
Jasmine Abernathy, LU.



Alexander Rivas, CU.



ECU Scholars
Back: John Dale, Thong Phan
Front: Laura Asaro, Nik Razo.



Chelsea Spencer, UCO.

NCUR 2015



The **29th National Conference on Undergraduate Research** was held April 16-18, 2015, at Eastern Washington University in Cheney, Washington. Undergraduates from all disciplines, academic levels, and institutions from across the nation submit abstracts to present at this event. Of the more than 3,700 submissions, approximately 3,000 were selected.



The OK-LSAMP program and the state of Oklahoma were well represented. Students from Oklahoma institutions submitted 64 abstracts. Of those, 36% were from OK-LSAMP Scholars. Of all the abstracts submitted by Oklahoma students, 88% were accepted. Of all the abstracts submitted by OK-LSAMP Scholars, **96% were accepted for the conference.**

OK-LSAMP Scholars who attended and presented at the conference included: Jonathan Aston (TU), Zoe Austin (OSU), Tyler Autry (OSU), Matheus Barbosa (OSU), Ana Chicas-Mosier (OSU), Nicole Davalos (TU), Lisa Elizondo (OSU), Joseph-Michael Fields (LU), Evan Flanagan (OSU), Michael-Joseph Gorbet (SWOSU), TJ Johnson (TU), Ryan Martinez (TU), Brooke Romine (OSU), Adrian Saenz (OSU), Natalie Santa-Pinter (TU), Matt Takyi-Micah (OSU), Kevin Vo (OSU), Amber Washington (OSU), Hannah White (OSU), and Jacob Yerton (NSU). Dr. JC Diaz (TU OK-LSAMP coordinator) gave a faculty presentation. In addition, Fara Williams (OK-LSAMP coordinator), Dr. Greg Wilson (UCO OK-LSAMP coordinator), and several other faculty and staff traveled with the students. Though they were unable to attend the conference, abstracts were accepted by: ShaRhonda Carson (UCO), Morgan James (LU), John Moore (NSU), and Kellyn Pollard (LU). *From left to right, pictured below: Michael-Joseph Gorbet presenting, conference excursion cruise group, a group playing laser tag in their off time, Nicole Davalos presenting.*



Research Day at the Capitol

From left to right below: **Lindsay Davis**, LU chemistry senior; **Maeghan Murie-Harting**, OSU chemistry and biochemistry senior; and **Laura Asaro**, ECU physics senior, were selected to represent their institutions at Oklahoma's Research Day at the Capitol. Only 24 undergraduates from 18 Oklahoma institutions were selected.



Scholar Highlights & Research Experiences

Scholars who participate in summer research experiences are better prepared for future career opportunities by developing a diverse perspective on experiences in different locations and building relationships that enhance their future career goals.

Over the years, OK-LSAMP Scholars have participated in summer internships all around the country and the world. Many have been accepted to Research Experience for Undergraduates (REU) and similar programs at various organizations and institutions. Others have learned the in's and out's of the corporate world through industry internships. Several have spent their summers at national labs, and still others have continued working with their mentors on their home campuses for more in-depth work on their own projects. In 2014, 20 scholars traveled to 14 international locations.

Each of these experiences provide an opportunity for the scholar to extensively increase research skills as well as build on professional networks.



Pictured above, left to right:

Alfa Abame, SWOSU, was one of 196 students from 36 states named as a Newman Civic Fellow by Campus Compact. The award recognizes inspiring college student leaders who have demonstrated an investment in finding solutions for challenges in their communities.

Amber Anderson, OSU, will continue her education in graduate school studying disease prevention at North Dakota State University and hopes to return to the Cherokee Nation and serve her tribal members.

Bree Cooper, OU, went to Italy in 2014 for a study abroad experience. This summer, she is participating in an internship in Anchorage, Alaska, with BP Oil Company.

Dustin Davilla, Megan Ayala, and Ashlie Walker, SWOSU, presented at the 247th American Chemical Society National Meeting and Exposition in Dallas, TX, March 16-20, 2014.

Lisa Elizondo, OSU, gave five presentations at local, state and national conferences and earned recognition for two. Lisa received the Oklahoma Ornithological Society Special Projects Grant, and served as president of the Wildlife Society, leading the OSU chapter to place second overall at conclave - a regional academic and field skill competition. This summer, she is in North Dakota working on a grassland bird project. Lisa graduated with two bachelor's degrees in biological sciences and natural resource ecology and management and will begin graduate school at Louisiana State University in the fall.



Pictured left: **LU Scholars** attended the Beta Kappa Chi Conference in Houston, TX with Dr. Sharon Lewis, campus coordinator. Included were: Kellyn Pollard, Denzal Pugh, Njimile Miro, Eugene DeLoach, Rajah Singh, and Amber German.

Pictured below, left to right:

Jessica Gessell, CU, is currently on a research internship with Dr. Ann Nalley at Cameron University in the chemistry department and working on a project entitled *The Isomerization of Maleic Acid to Fumaric Acid*. She was accepted into the Chemistry Honor Society and Who's Who. She is also student vice president of Phi Kappa Phi.

Elizabeth Krause, CU, spent two semesters with Walt Disney World Company in Florida. Her summer of 2015 will be spent on the CU campus serving as a mentor to the Science Detectives Summer Academy for high school students.

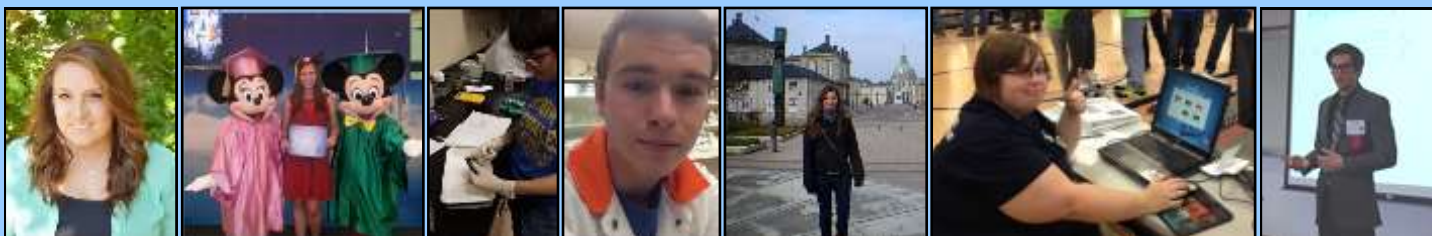
Tyler Littlefield, OU, performed a fish intestinal track dissection as part of his research project.

Matthew Maxwell, SEOSU, is participating in a research internship on a biofuel project at OSU.

Alejandra Mera, NSU, graduated with honors in cellular biology and was accepted into a graduate program in marine microbiology at the Max Planck Institute for Marine Microbiology in Germany.

Mary Ann Phillips, SWOSU, served as a game reviewer for Altered Confusion and received a scholarship to attend the ACM-W Super Computing Conference in Denver, CO. She also received a scholarship to attend the Tapia Conference in Seattle, WA, where she received second place in the Microsoft Code-A-Thon contest. After graduation in May 2015, Mary accepted an offer to work with Wal-Mart in Bentonville, AR.

Grant Williams, OSU, received second place for his oral presentation during OSU Research Week in February 2015. He also received second place during the American Meteorological Society's 13th Annual Conference on Artificial Intelligence in Phoenix, AZ, January 4-8, 2015.



Brookhaven National Lab

Brookhaven National Lab (BNL) in Upton, New York, has sponsored one faculty mentor (**Dr. Gilbert John**, associate professor of microbiology at OSU) and two scholars for 12 weeks of intense research on its campus. In 2014, **Roberta Reed**, OSU, and **Lauren Thompson** (*right*), NSU, participated in the program. Lauren continued her research at NSU and presented information at the 2014 SACNAS Conference in Los Angeles, CA. Roberta completed degree requirements in December 2014 and accepted employment in industry.



Dr. John returned to BNL in June 2015 with **Marla Ichord** (*right*) and **Zach Ridge**, (*left*) both from OSU. The students will continue with the research project started by Lauren and Roberta in 2014. In addition to conducting research at BNL, Marla and Zach will spend two weeks at the Einstein College of Medicine in New York City. At the end of the summer, Marla and Zach will present their summer's work to staff at BNL in a one-day poster session.



OK-LSAMP Scholars Go International

Louisiana State University iREU Program

The Oklahoma LSAMP program, in coordination with Louisiana State University, sponsored five LSAMP Scholars for an iREU experience. The 2014-2015 U.S./France/Belgium iREU site in Translational Chemistry, directed by Dr. Randy Duran (LSU director of the office of undergraduate research), placed LSAMP Scholars in institutions across France. Dr. Duran stated, "I suspect this is the only LSAMP program in the U.S. to send so many outstanding Native American women abroad for research projects of this type. It certainly is a first for my 20-year career, which includes work with hundreds of U.S. undergraduates."



Three Scholars from the Oklahoma Alliance were selected to participate in the 2014 iREU, and two scholars were selected to participate in the 2015 iREU.

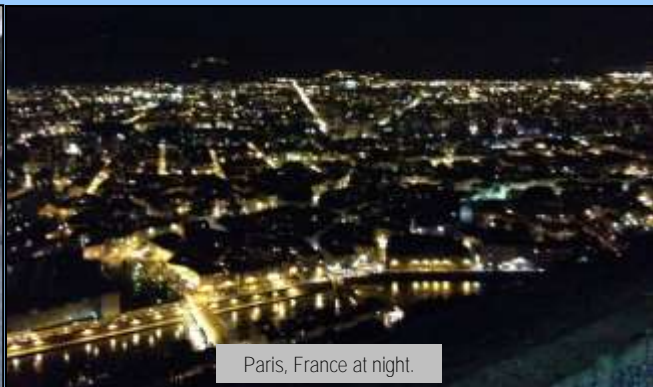
Keely Redhage, OSU, graduated with a bachelor's degree in microbiology in May 2014. Then, she spent three months in Lille, France, at the world-famous Pasteur Institute. Upon her return to the United States, Keely began pursuing graduate degrees at the Mayo Clinic.

Ashlie Walker, SWOSU, graduated with a bachelor's degree in chemistry in May 2015. In 2014, she spent six months in Grenoble, France, at Joseph Fourier University. In the fall, Ashlie will begin pursuing graduate degrees at Kansas State University.

Amanda Mathias, OSU, graduated with a bachelor's degree in animal science in May 2014. A simple question asked to Kay Porter turned into eight weeks conducting research in animal agriculture in three different labs with professors and the staff of the Federal Rural University in Pernambuco, near Recife, Brazil. She is the first person to go from a bachelor's degree to pursuing a doctoral degree in animal science at LSU. She has also been awarded a Bridge to the Doctorate Fellowship at LSU.



Ashlie Walker with a Fulbright representative at the French American Conference.



Paris, France at night.



Amanda Mathias (left) and Keely Redhage (right) at NSF for a pre-program conference at which each scholar presented their academic year research as well as their proposed summer research.

In January 2015, two OSU scholars, Andres Guerrero Criado and Nicolas Means, traveled to Grenoble, France, where they began conducting research at the Joseph Fourier University through the LSU iREU program. In June, a two-day French American Workshop was hosted at the Joseph Fourier University. Both Andres and Nicolas presented their research to faculty from French institutions, Fulbright members from both the U.S. and France, and faculty from LSU and other U.S. institutions. They will stay in France until August, then return to OSU in order to complete degree requirements.



Andres Guerrero Criado (*left*) is a microbiology senior who works with Dr. Noha Youssef on the OSU campus. In France, he is working under the guidance of Dr. Thomas Pfannschmidt. Andres was selected to represent OSU as a candidate for the 2015 Goldwater National Scholarship.

Nicolas Means (*right*) is a microbiology senior who works with Dr. Gopan Krishnan on the OSU campus. In France, he is working under the guidance of Dr. Serge Cosnier.



Weekends have been spent taking advantage of opportunities to travel and visit local sites throughout France and neighboring countries.



Turkey REU

ShaRonda Carson, UCO, traveled to Bursa, Turkey, in 2014 to conduct research as part of a summer Research Experience for Undergraduates (REU) program. She spent the first two weeks traveling to different cities - Istanbul, Ayvalik, and Troy to learn about the culture and history. She traveled to Lesvos, Greece, to conduct trial studies before continuing with the research project in Turkey.

ShaRonda is studying the proboscis extension reflex (PER) in bees as a way to understand their cognitive processing. She is seeking a better understanding of foraging behavior, learning, processing, responding to stimuli, etc. PER studies have been conducted with honey bees (*Apis mellifera*) because they are widely known and the most popular among bee species. With an estimated 20,000 bee species around the world, the question arose concerning other bees and their cognitive processing. The objective of the research project was to address this question by determining whether other bee species besides the honey bee have a PER and, if so, where on the bee's body PER is triggered.



Native American and Pacific Islanders in Research

For the fifth year, two OK-LSAMP scholars (**Morgan James**, LU chemistry major, and **Hannah White**, OSU environmental science major) were selected to participate in the **Native American and Pacific Islander Research Experience (NAPIRE)** program in Costa Rica. The program, sponsored by the National Science Foundation and the Organization for Tropical Studies through Duke University, brings 10 talented undergraduate researchers to spend the summer conducting research for 12 weeks on the Los Cruces Biological Research Station with mentors from across the country.

In addition to completing a research project, Hannah and Morgan participated in lectures, seminars and field activities that focused on tropical ecology and conservation. They each had numerous opportunities to interact with indigenous groups of Central America, allowing a firsthand look at the role of the Native People in tropical forest conservation.

Dr. Sharon Lewis, OK-LSAMP coordinator and associate professor in chemistry at Langston University, served as campus mentor for Morgan James. **Kay Porter**, OK-LSAMP program manager, served as campus mentor for Hannah White. NAPIRE sponsors the campus mentors with the opportunity to travel to Costa Rica in April to meet with the summer mentors, visit the research stations and become familiar with the program.

Center picture: 2014 NAPIRE research group including students, mentors and program staff.

Clockwise from top left: Hannah White, Morgan James, 2014 mentor workshop excursion, Dr. Sharon Lewis.



ECU Student Involved in Worldwide Environmental Health



Linzi Thompson, ECU senior environmental health science and chemistry double major, is making a difference everywhere she travels. Linzi, who is of Choctaw and Cherokee heritage, always knew she was going to be a scientist but was uncertain of what field. Once she figured this out, she began making a name for herself locally and internationally. Chosen as one of 10 to participate in the 2014 REU-China: Ecological and Environmental Research in an Urbanized Landscape at Nanjing Forestry University through Alabama A&M University, she spent 10 weeks focusing on ecological and environmental scientific research of the quickly urbanizing landscape of Nanjing Province in China. This research engaged students in a broad range of ecological and environmental scientific research with a focus on hypothesis-driven quantification, experimentation and the modeling of human-induced ecological and environmental changes, particularly

ecosystem responses to urbanization.

Again, in December 2014, Linzi found herself traveling to another country. She was invited to be the keynote speaker at the Human Action for Peace, Prosperity, and Sustainable Development International Conference in Kathmandu, Nepal. In addition to being the keynote speaker, the American Culture class at Tribhuvan University in Kathmandu invited her to be a guest lecturer. Tribhuvan is the largest university in Nepal.

Linzi has received numerous accomplishments for her research including: recipient of the Student Leadership in Research Award at the Women of Color Conference in Dallas, TX; recipient of the NASA National Space Grant College and Fellowship Program; representative of ECU at Oklahoma Research Day at the Capitol, and presenter at the Oklahoma Academy of Science and Technology state meeting. Additionally, Linzi received first place for her research poster at the OK-LSAMP 20th Annual Research Symposium.

In May 2015, Linzi graduated from ECU and is spending the summer before graduate school conducting research in Sitka, AK. She is a participant in the Southwest Regional Health Consortium Indian Health Services Program in Environmental Health Issues.



Nationally Competitive Award Winners

Three Scholars received nationally competitive awards. **Katy Riojas**, TU mechanical engineering senior, was awarded the Goldwater Scholarship. Katy, a member of the TU Women's Soccer team, was selected from a pool of over 1,200 applicants for the Goldwater Scholarship. **Mason Linscott**, TU, was awarded a Graduate Research Fellowship. Mason Linscott received his degree in 2014 and is currently enrolled in an evolutionary biology graduate program at the University of Idaho. The GRFP award provides him with a \$138,000 fellowship. **Maeghan Murie-Harting**, OSU senior, is a double major in chemistry and biochemistry and molecular biology. Maeghan was one of only 50 students to receive the Udall Scholarship from 464 applicants.



Scholars Receive BD Fellowships

Cord Carter, SEOSU, Jackson State University
Lindsay Davis, LU, University of Texas - Austin

Amanda Mathias, OSU, Louisiana State University
Martell McKinney, LU, Binghamton University

21ST OK-LSAMP ANNUAL RESEARCH SYMPOSIUM

Poster and Oral Research Presentations

Keynote – Dr. Kathleen Kaplan

Air Force Research Lab (AFRL) Office of Scientific Research



Additional Information:

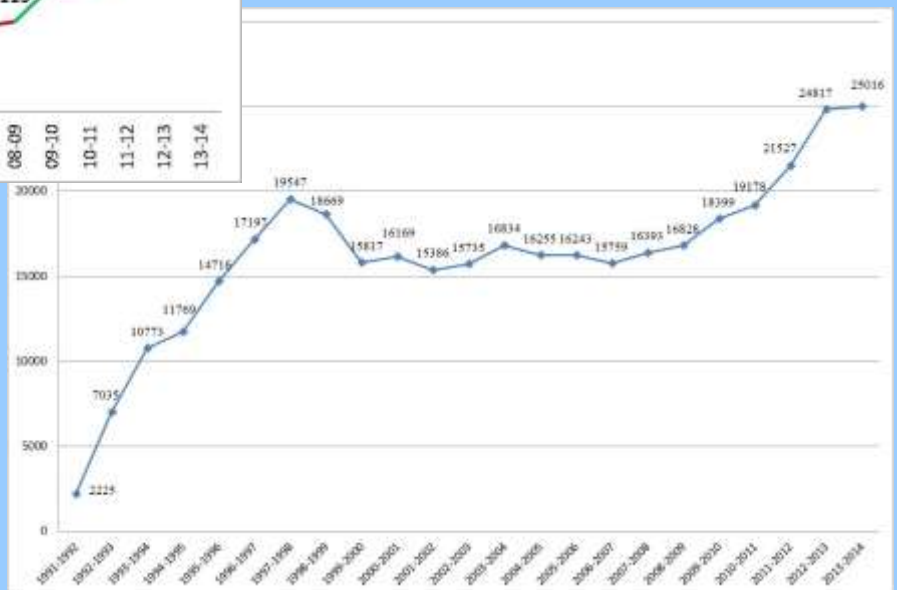
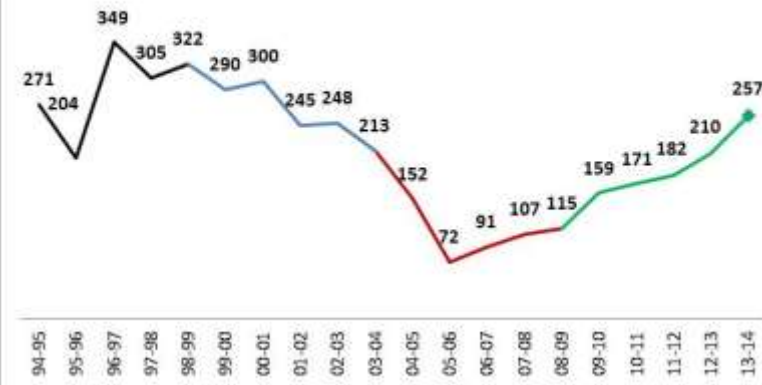
405-744-7820 or 405-744-6710
www.ok-lsamp.okstate.edu

September 26, 2015
OSU-Stillwater Campus
Noble Research Center

National LSAMP

The Oklahoma LSAMP is one of 42 active alliances in the nation. OK-LSAMP supported 257 Scholars during academic year 2013-14. The number of participants has increased 257% since academic year 2005-06. Nationally, the number of participants has increased 59% since the 2006-07 academic year. Working together, we can put the pieces together and increase the number of students from underrepresented populations who receive degrees in Science, Technology, Engineering, and Mathematics (STEM) disciplines.

Oklahoma Alliance



Publications

Many scholars (past and present) have been published in peer reviewed journals. Below is a list of the most recent published Scholars.

Megan Alaya, SWOSU
 Ana Chicas-Mosier, OSU
 Dustin Davilla, SWOSU (two publications)
 Elisa Elizondo, OSU
 Jared Giem, OU
 Jacob Henderson, OU BD (four publications)
 Geoffrey Kibble, OSU
 Mason Linscott, TU (two publications)
 Maeghan Murie-Harting, OSU (two publications)

Abigail Ntrel, OU BD (two publications)
 Allison Quirogo, OU BD
 Aaron Riley, ECU
 Ashley Rodriguez, SWOSU
 Chelsea Spencer, UCO
 Ashlie Walker, SWOSU (three publications)

BD Fellow Highlights



Tomica Blocker



Nicole Parker



Greg Cook (in purple)



Zach Dunn



Joey Dyer



Shelby Fraser



Jonathan Gonzales

There are many causes for celebration for the OK-LSAMP BD Fellows.

R. Paula (Arscott) Hopson, OSU chemistry, married Garrett Hopson in August 2014. In May 2015, she and her new husband celebrated the birth of their first child.

Tomica Blocker, former BD Fellow, OSU zoology, is currently attending the University of Kansas Medical School. Tomica was selected to meet with President Obama on January 21, 2015.

Nicole (Bryant) Parker, OSU botany, presented at the International Arabidopsis Conference in Australia in August 2014 and married Chance Parker that same month. This summer, Nicole traveled to Paris, France, to present at the 2015 International Arabidopsis Conference.

Brandon Burgess, OSU plant and soil sciences, completed a master's degree in December 2014 and has taken a job in industry.

Greg Cook, OSU biomedical sciences, was instrumental in the creation and implementation of the Way Cool Science Club, an after-school program for elementary students at a Tulsa public school. This program helped children to work on a science project in order to "replace kids' preconceived notions of science with real world examples." In November, Greg presented at the Society for Neuroscience National Meeting in Washington, D. C.

Zach Dunn, OU, presented his research at the NATO Science and Technology Organization Specialists Meeting in Berlin, Germany.

Joseph "Joey" Dyer, OSU natural resources and ecology management, received a grant for \$214,878 over a four-year period to fund his research project. He is studying seasonal migration and spawning site selection of blue suckers *Cycleptus elongates* in the Red River and its tributaries below Denison Dam.

Shelby Fraser, OSU natural resources and ecology management, received a grant for \$45,000 to fund her research. She is tracking the movements of coyotes at the Nature Conservancy's Tallgrass Prairie in Pawhuska, Oklahoma. Shelby also received a \$1,000 scholarship for her book collection essay submitted to the OSU library. During spring break 2015, Shelby traveled to the Galapagos Islands for a study abroad experience, and in May 2015, she traveled to Vietnam with family. In addition, Shelby is a member of the OSU triathlon team and is the only female president in the region.

Jonathan Gonzales, OSU electrical engineering, received a grant from the National Science Foundation. This NSF grant is part of the Small Business Innovation Research program. The current focus of the project is on the development of the proposed sensor technology for point of diagnostical devices. Jonathan serves as the principal investigator and is in charge of developing the technology and managing others in order to accomplish the objective set forth in the process.

Josh Hardisty, OU, completed master's degree requirements in geophysics in July 2015. He is now employed by Noble Energy in Houston, TX as a geophysicist.



Dr. Quinten Hughes, OU, completed a doctoral degree in 2011. He is now the GEAR UP site facilitator for Oklahoma City Public Schools, founder/organizer of Young Urban Entrepreneurs, and co-founder/event coordinator of Ph.D. Entertainment.



Jemere King, OSU electrical engineering, completed requirements for a master's degree in May 2014. He now works in Texas and will be getting married in July 2015.

Darron "DJ" Lamkin, OSU industrial engineering and management, was recognized by the Oklahoma City Public Schools Board of Education as a recipient for the 2015 Advisory Board Champion Award for his leadership to at-risk students through his "Class Matters" program at Northeast Academy of Engineering. DJ completed a master's degree in entrepreneurship in December 2014 and continues to work toward a doctoral degree.

L. Meghan Liles, OU, received a master's degree in immunology in 2013 and has been admitted to the University of Oklahoma Physicians Assistant program.

Milecia Matthews, OSU mechanical engineering, was awarded a Professions Fellowship through the American Association of University Women. The \$15,000 scholarship will provide funding toward a doctoral degree.

Josh McCloud, OSU botany, completed a master's degree December 2014. He is now working on his doctoral degree at the University of Tulsa.

Abigail Ntneh, OU, made two research presentations at the 2015 Gordon Research Seminar: Multi-Drug Efflux Systems, Lucca (Barga), Italy.

Danielle Perryman, former LSAMP Scholar from San Jose State College in California and OSU integrated biology graduate student, became a BD Fellow in June 2015.

Allison "Allie" (Potts) Sherier, OSU forensics, married David Sherier in August 2014. Her dog, **Rocky**, is a therapy dog participating in Pete's Pet Posse and sponsored by Institutional Diversity/OK-LSAMP.

David Supeck, OSU, is completing Ph.D. requirements in biomedical sciences. He has been accepted to the OSU Center for Health Sciences to complete the doctor of osteopathic medicine degree.

Charles "CJ" Williams, OSU industrial engineering and management, completed requirements for the master's degree and is now working in industry.

B. "Liz" Zehren, OSU medical physics, met baseball player Jim Morris when he spoke to OSU staff. She will complete a master's degree in the summer of 2015 and begin the dosimetry program at the University of Texas, San Antonio in August 2015.

Jadith Ziegler, OU, was admitted to the biomedical science doctoral program at OUHSC and selected as the 15th Annual Paul Kimmelstiel Graduate Student Award recipient for Excellence in Research and Presentation Skills Competition.



Alumni Updates & Highlights



Lindsey Berger



Kristina Black



Felecia Ekpo



Courtney Garcia

Tristan Allen, LU, is now programming resident director at the University of Oklahoma.

Lindsey Berger, OSU, is working for the Science Museum of Oklahoma as well as the Oklahoma Medical Research Foundation (OMRF). At the museum, she is teaching and hosting overnight science events for students and summer camps. Her supervisor at OMRF is encouraging her to pursue graduate school.

Kristina Black, OU, graduated in May 2014 and is currently in Alaska.

Justina Bradley, LU, is pursuing a master's degree at the Philadelphia College of Medicine.

Dr. Leethaniel Brumfield III, LU, completed a doctoral degree at North Carolina State University and is now a post-doc at Emory University and working with a sweet potato breeder.

Paul de la Cerda, OSU, was re-elected to a third term and president of the school board in Los Angeles County. He serves as dean at the Los Angeles Community College District, overseeing all STEM programs at the East Campus.

Felecia Ekpo, LU, is completing requirements for a doctor of osteopathic medicine and had two publications in peer reviewed journals.

Courtney Garcia, SWOSU, is completing her graduate degree in neuroscience at Baylor College of Medicine in Houston, TX. In her spare time, she works and plays with her horses.

Garrett Hood, OU, completed a project in China building a 100-ton dump truck.

Dexter Hunter, OSU, is pursuing a graduate degree at George Washington University.

Vicky Kelly, OSU, is completing doctoral degree requirements at LSU in the Department of Pathobiological Sciences. In addition to her graduate studies and working in the Veterinary Clinic, Vicky finds time to mentor undergraduate students who wish to apply to vet school.



Garrett Hood



Dexter Hunter



Vicky Kelly



Andrew Mock



Juan Orozco



Sabrina Scroggins, PhD



LaTasha Vick, DDS



Cammi Valdez, PhD

Andrew Mock, OSU, is a graduate student at the University of Illinois. He conducted research in France for a year with funding from the Graduate Research Fellowship and the Graduate Research Opportunities Worldwide programs. He has completed all course work and is now working on his dissertation at home in Rowlett, Texas.

Juan Orozco, UCO, is currently a GEM fellow at the University of Michigan working toward a master's degree in electrical engineering. As part of his fellowship, he obtained two internships with Fiat Chrysler Automobiles. This summer, he is working in the Powertrain Driveability and Emissions department at the Chelsea Proving Grounds. He received the ScholarPOWER Masters' Student Achievement Award at the university.

Aaron Riley, ECU, completed a master's degree in medical physics at the University of Wisconsin, Madison.

Dr. Sabrina Scroggins, ECU, completed doctoral requirements at the University of Iowa. Following graduation, she was awarded a National Institutes of Health funded postdoctoral fellowship to continue her research. She recently published a ground breaking paper on hypertension, holds two patents, and is working with companies for diagnostic testing development.

Jazmenn Smith, LU, graduated in May 2014 and is an IT Specialist for the USDA in Oklahoma City.

Dr. Cammi Valdez, SWOSU, received a doctoral degree from Harvard University and is serving as assistant director for undergraduate research in Cambridge, Massachusetts.

Dr. Latasha Vick, OSU, received a doctor of dental surgery from Meharry Medical College School of Dentistry, Nashville, TN and is now practicing in Baxter Springs, Kansas.

Justin Williams, LU, is participating in a post-bac program at the University of California, San Francisco.

Dr. Daniel Wilson, TU, released a game app and was featured in the *Tulsa World*.

Latasha Woodard, OSU, was recently hired as a civil engineer with Rapid Bridge Building Technologies in Oklahoma City, OK. In addition, she has a soon-to-be released patent for a new pre-cast bridge which the company will be utilizing.



Justin Williams

Daniel Wilson,
with his children

LaTasha Woodard

Coordinator and Mentor Highlights



On May 16, 2015, at the 29th Annual Academic Awards banquet, **Dr. Tim Hubin**, SWOSU campus coordinator and professor of chemistry, was presented with the *2015 Medal for Excellence in Teaching at a Regional University/Community College*. The event, known as the Academy Awards of Public Education in Oklahoma, honors outstanding teachers in five categories: elementary, secondary, community college/regional university, and research university levels. In addition to receiving the honor, Dr. Hubin received a check in the amount of \$5,000. The Oklahoma Foundation for Excellence was founded by David Boren who was a U.S. Senator at the time.

We are pleased to announce **Dr. Mike Husak** as the campus coordinator for Cameron University. Dr. Husak is an associate professor of biology in the department of biological sciences. Dr. Husak holds bachelor's and master's degrees in biology from Angelo State University. In 2007, he earned a doctorate in biological sciences with an emphasis on ecology from Mississippi State University. In addition to teaching biology, ecology, mammalogy, ornithology, and zoology, he is the collection manager and curator of vertebrates for the Cameron University Museum of Zoology. A member of the Cameron faculty since 2003, Dr. Husak was voted Professor of the Year by students of biological sciences in 2006. In 2015, he was inducted into the Cameron University Alumni Association Faculty Hall of Fame. He also received the Faculty Award for Excellence in Mentoring Student Research.



E. Ann Nalley, Ph.D., (left) Cameron University mentor, received the 2015 American Chemical Society Award for Encouraging Women Into Careers in the Chemical Sciences. At age 72, Dr. Nalley still mentors and inspires students at Cameron University.

Dr. Mark Payton, former OK-LSAMP PI, participated in the 2013 Iditarod race. He is pictured with the lead dog for his team. He, along with another OSU professor, participated in a research project with Alaskan sled dogs. Way to Go!!!



The **Oklahoma Experimental Program to Stimulate Competitive Research (EPSCoR)** provides tremendous support to the OK-LSAMP program through direct support for scholars to travel to the National Conference on Undergraduate Research. EPSCoR also provides support through its yearly programming. OK-LSAMP Scholars take advantage of the opportunity to present at Oklahoma Research Day and Oklahoma Research Day at the Capitol (both funded by EPSCoR). Scholars volunteer and serve as mentors for the Women in Science STEM Conference - also funded by EPSCoR.



OK-LSAMP recognizes the importance of our faculty mentors. The program would NOT be a success without the time, expertise, and dedication of those in the lab and the field who guide the scholars in research and professional development. January is National Mentor Month. This year, we sent each of our mentors a brief “thank you,” but this is not enough to express our gratitude. We greatly appreciate all they do.



OSU-CHS Office for the Advancement of American Indians in Medicine and Science



Oklahoma State University's Center for Health Sciences (OSU-CHS) launched an effort to recruit more American Indian high school and college students into medicine and science careers. OSU established the Office for the Advancement of American Indians in Medicine and Science under the direction of **Kent Smith, Ph.D.**, a member of the Comanche Nation and the Chickasaw Nation. Dr. Smith is an associate professor of anatomy and cell biology and an OK-LSAMP mentor. Dr. Smith is quoted: “Our initiative will increase the number of American Indians practicing medicine and working in the science fields through mentoring and targeted programs. The efforts will help our Native American students in Oklahoma excel in these fields by offering hands-on experiences that combine Native culture and science.” This initiative was highlighted in the December 4, 2014, issue of *Diverse Issues in Higher Education*.

The Potawatomi Nation recently featured the OK-LSAMP program in their tribal newsletter.

HOWNIKAN

JANUARY 2015 5

Oklahoma LSAMP Alliance promotes diversity in science, technology, engineering and math

Though generally muddled by talking points from both sides of the political spectrum, the focus on education in the U.S. continues to be both a vital political and economic issue impacting the country's future. In one small corner of that milieu reside individuals like CPN member Kay Porter.

The Bertrand family member has spent the past seven years as program manager for the Oklahoma Louis Stokes Alliance for Minority Participation, or OK-LSAMP, at Oklahoma State University. The program is housed within the Division of Institutional Diversity with Dr. Jason F. Kirksey, Vice President of Diversity serving as the Principal Investigator.

Consisting of eleven partner institutions in the state, OK-LSAMP focuses on developing programs that will increase the participation of students in the science, technology engineering and mathematics fields who are typically underrepresented in these disciplines.

Porter, who holds a BS in Trade and Industrial Education and an MS in Occupational and Adult Education from OSU, spoke with the *Hownikan* about her program's work in the first of this series.

Why is something like LSAMP important in Oklahoma? What populations in this state specifically are being targeted for the program?

"We focus on raising the participation of Native American, African American, Hispanic and Pacific Islander students majoring in STEM programs.

"It is important to increase the diversity of the work force throughout the nation, increase the number of college faculty and recruit talented students from a pool of previously untapped populations. Not enough underrepresented populations have been encouraged to pursue higher education degrees. In short, we need more mentors that students can identify with."

How does the program go about this practically?

"OK-LSAMP helps to close this gap by making students more aware of opportunities in STEM degree programs and the STEM workforce. Students are paired with a faculty mentor, learn to conduct research during the academic year, participate in summer domestic and

seeing this, it encourages them along the same pathways."

Are there parts of the program specifically geared towards Native Americans?

"One aspect of the OK-LSAMP program is the Scholars in Science: Native American Path Program, also known as SSNAP. This program, funded in part by

graduation rates among minorities in Oklahoma's colleges and universities. In fact Oklahoma has a lower probability rate of students completing degrees in STEM programs.

"Native Americans are 8.6 percent less likely, while Hispanics and African Americans are 5.3 percent and 14.4 percent (respectively) less likely to complete a STEM

to continue the program until 2019."

Have there been Tribal members that have been a part of the program?

"Laura Scott was an LSAMP scholar at OSU, completed her BS degree in 2011 and took a position at the Oklahoma Medical Research Foundation in Oklahoma City. She is leaving in January for Tulane University in New Orleans to start a Ph.D. program in Tropical Medicine and Epidemiology.

"Andrew Mock completed his BS degree from OSU in 2011, and is completing a Ph.D. at the University of Illinois and just received a grant from the National Science Foundation to study in France for a year. Andrew received grant funding that pays for three years of education costs, plus a monthly fellowship stipend, in the U.S. and for one year of study abroad in France.

"Zack Dunn completed BS degree requirements from OU in 2011 and is now working toward his Ph.D. at OU through the OK-LSAMP Bridge to the Doctorate Program.

"Janet Geim graduated from East Central University in 2013, and is now completing Ph.D. requirements at OU through the OK-LSAMP Bridge to the Doctorate Program. The Bridge program is the next phase of the OK-LSAMP program. In it, 12 scholars are selected nationwide to receive a two year stipend to attend graduate school. The Fellow is paid \$2,500 a month for 24 months and receives \$10,500 annually for two years for cost of education."



international internships and prepare for graduate school.

"Students are considered scholars and are offered opportunities to present the research they have conducted at local, state, national and international conferences, usually without any expenses.

"By providing opportunities for students to interact with their peers, the program allows them to see firsthand what others are doing and how they are succeeding. In

the Society for the Advancement of Chicanos and Native Americans in Sciences, has taken 30 Native American students to three national conventions to present research posters and provide opportunities for networking among peers and faculty of like cultures."

How successful has OK-LSAMP been?

"There is a tremendous gap between enrollment and

degree in four years than white students.

"Overall these underrepresented populations' enrollment in STEM higher education in Oklahoma grew from 1,325 in 1995 to 5,960 in 2013, an increase of 350 percent. This is due in large part to the OK-LSAMP program, which has received funding through the National Science Foundation for the past 20 years. NSF recently awarded Oklahoma \$3.4 million

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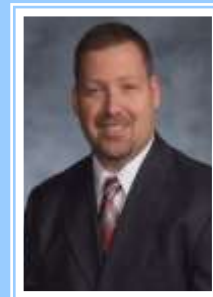
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Funded by the National Science Foundation (NSF), the Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) is a consortium of Oklahoma colleges and universities working together to develop programs aimed at increasing the number of students from underrepresented populations who receive degrees in Science, Technology, Engineering, and Mathematics (STEM) disciplines. Current goals of the program focus on undergraduate research experiences, international experiences, and graduate school preparation. Activities include faculty mentoring, conference and presentation travel, and meetings focused on professional development and networking.

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