

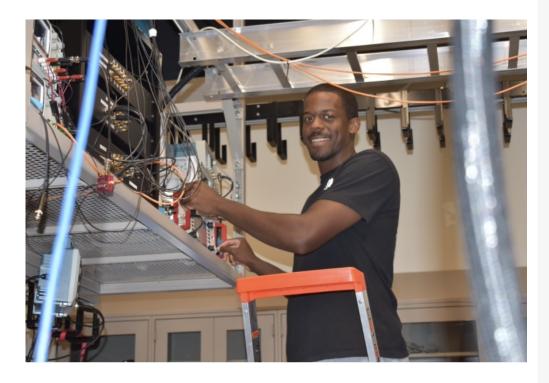
OKLAHOMA STATE UNIVERSITY 401 SCOTT HALL STILLWATER, OKLAHOMA PHONE: 405.744.7820 oklsamp@okstate.edu www.ok-lsamp.okstate.edu





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About OK-LSAMP

Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) is funded by the **National Science** Foundation and it is a partnership of **Oklahoma Colleges** and Universities working together to develop programs aimed at increasing the number of students from underrepresented populations who receive degrees in STEM disciplines.

Current goals of the program are to focus on:

- Undergraduate research experiences
- International experiences
- Graduate school preparation

Activities include:

- ♦ Faculty mentoring
- Conference and presentation travel
- Meetings focused on professional development and networking
- Performance based stipends for students



MESSAGE FROM THE PI

Dr. Jason F. Kirksey

Dear OK-LSAMP Community,

Over the past couple of years, the nation, and indeed the world, has encountered an unprecedented threat to humankind. It is the intelligence, innovation, and vibrancy of the worldwide Science, Technology, Engineering, and Mathematics (STEM) community that continues providing solutions and proactive future measures and strategies to prevent a recurrence of this type of situation. Without question, in 1994 when Dr. Earl D. Mitchell, Jr. wrote the original OK-LSAMP (formerly OKAMP) National Science Foundation (NSF) grant and served as the initial Principal Investigator, he understood the significance of preparing the next generation of STEM researchers and scholars. The intent and goals of the OK-LSAMP program today remain aligned with those of Dr. Mitchell almost three decades ago. The responsibility for preparing and equipping underrepre-

sented, underserved, and marginalized STEM scholars with the capacity to positively alter the trajectory of scientific inquiry and research remains paramount to the mission of the OK-LSAMP program.

The unfortunate situation across the nation and around the globe served, in many ways, as the impetus for the development of innovative ideas and resources to connect OK-LSAMP Scholars literally to research opportunities and intellectual engagements all over the world. Subsequently, the cutting-edge research, diligence, hard work, and resolve of OK-LSAMP Scholars and their faculty mentors resulted in the continued worldwide representation of our program. Successfully continuing the legacy and contributions of Dr. Mitchell serves as another reason for the OK-LSAMP family to be proud and remain resolute in our focus and commitment. A number of OK-LSAMP Scholars, again, presented their research at nationally prominent scientific conferences like American Indian Science and Engineering Society (AISES), Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), Annual Biomedical Research Conference for Minority Students (ABRCMS) and Emerging Researchers National (ERN).

These and many other, noteworthy accomplishments personify the persistent dedication of OK-LSAMP Scholars. The special and spectacular achievements of our scholars are possible because of the unwavering commitment and support of our Campus Program Managers. The unapparelled leadership, encouragement, and inspiration they provide are evident in the exceptional work of OK-LSAMP Scholars and the accolades they continue receiving. Please accept our heartful appreciation and gratitude for your incredible mentorship and unrelenting guidance of OK-LSAMP Scholars.

We would also like to announce the retirement of Dr. JC Diaz of the University of Tulsa (TU). Dr. Diaz served as one of our outstanding OK-LSAMP campus program managers for 26 years with great enthusiasm and high esteem. We admire and appreciate Dr. Diaz's devotion to the scholars he mentored over the past quarter-century as the OK-LSAMP program manager at TU. We owe Dr. Diaz a tremendous debt of gratitude and honor and recognize him for his unyielded support and dedication to the OK-LSAMP program.

We are excited about this 27th Annual OK-LSAMP Research Symposium. Whether this is your first experience or the twentieth, we are confident you will be captivated and astounded by the depth and breadth of this show-case of the noteworthy accomplishments and wonderful stories of OK-LSAMP Scholars and their faculty mentors during the past year. It continues to be my pleasure and quite a humbling honor to serve as the OK-LSAMP program's principal investigator. I encourage you to take advantage of this incredible and unique opportunity to meet and interact with the Campus Program Managers from our twelve Alliance institutions, faculty mentors, staff, and particularly our Scholars and Bridge to the Doctorate Fellows. Finally, a very special thanks to the OK-LSAMP team and those near and far who assisted with the arduous planning and preparation for this wonderful event.

Sincerely,

I. Klery

Jason F. Kirksey, Ph.D. Vice President for Institutional Diversity and Chief Diversity Officer Principal Investigator for the Oklahoma Louis Stokes Alliance for Minority Participation

SCHOLAR REQUIREMENTS

Eligibility Requirements

- 1. Minimum GPA 3.00
- 2. US citizen or permanent resident
- 3. Able to participate in and contribute to program activities
- 4. Full time student in an approved STEM field (see approved majors next page
- 5. Demonstrated intent in pursuing investigative studies and a graduate degree in STEM
- Demonstrated desire to promote the efforts of LSAMP and NSF in underrepresented communities

Requirements for Continued Support

- 1. Maintain GPA of 3.00 or higher
- Regular class attendance Retain full-time status (Immediate notification of any drop/add changes required)
- 3. Remain in eligible STEM major (Immediate notification of major change is required)
- 4. Continued active participation in the required program activities.
- Any scholar whose participation rate is below 75% may be dismissed from the program the following semester.

Required Activities for All Participants

Scholars Meetings - Once a month unless specified otherwise

Mentoring Component - Under the guidance of faculty mentors, all scholars are expected to participate in 5-10 hours of research-related experiences per week. Enrollment in 3 hours of departmental Special Problems permitted.

Graduate School Preparation -Scholars will be involved in vigorous preparation for graduate studies. Specific activities will be based on academic classification. By the end of the semester BEFORE you graduate, you are required to submit a minimum of five applications for admission to graduate school.

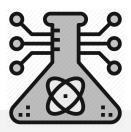
Summer Research Internships

- All scholars will be involved in a two-month summer internship and must present their research at the OK-LSAMP annual research symposium.

Occasional leadership, peermentoring, or other program activities - This will not interfere with your academics.

Acknowledgement of support by OK-LSAMP and NSF -(Cooperative Agreement HRD-1911370 in appropriate publications and public events is required. Display of the OK-LSAMP and NSF logos on posters and on last slide of Power-Point Presentations is required. Logos will be provided by the OK-LSAMP office.

Approved Majors



Agricultural Sciences

-Animal Sciences

- -Food Science and Technology
- -Plant and Soil Sciences

Natural Resources and Conservation

-Natural Resources -Wildlife and Wildlands Science and Management

Architecture

-Architecture

-Environmental Design

-Architectural Sciences and Technology

Computer and Information Sciences

-Computer and Information Sciences -Computer Programming -Computer Software and Media Applications

Mathematics

-Mathematics

-Applied Mathematics

-Statistics

Physical Sciences

-Physical Sciences

- -Astronomy and Astrophysics
- -Atmospheric Sciences and Meteorology

-Chemistry

-Geological and Earth Sciences/ Geosciences

-Physics

-Materials Science

Business and Management

-Management Sciences and Quantitative Methods

Engineering and Engineering

Technologies

-Aerospace and Aeronautical Engineering

- -Agricultural Engineering
- -Architectural Engineering
- -Chemical Engineering
- -Civil Engineering
- -Computer Engineering
- -Electrical Engineering
- -Industrial Engineering
- -Materials Engineering
- -Mechanical Engineering
- -Nuclear Engineering
- -Petroleum Engineering
- -Construction Engineering
- -Geological/Geophysical Engineering
- -Mechatronics, Robotics, and Automation
- -Biochemical Engineering
- -Biological/Biosystems Engineering
- -Construction Engineering Technologies
- -Nanotechnology

Biological Sciences

- -Biology
- -Biochemistry and Molecular Biology
- -Botany/Plant Biology
- -Cell/Cellular Biology and Anatomical Sci.
- -Microbiological Sciences & Immunology
- -Zoology/Animal Biology
- -Genetics
- -Physiology, Pathology and Related Sci.
- -Bioinformatics and Computational Bio.
- -Biotechnology
- -Neurobiology and Neurosciences
- -Biological and Biomedical Sciences

*Above is a condensed list of approved majors. If your major is not listed, visit with the program staff.

Research Presentations

OK-LSAMP 26th Annual Research Symposium

The **26th Annual Virtual Research Symposium** was held on **October 3**, **2020**, hosted by Oklahoma State University and Symposium by ForagerOne. **Dr. Ngozi Ubani Ochoa**, from the University of Texas -EI Paso LSAMP Bridge to the Doctorate and LSAMP Alum presented the keynote address.

The OK-LSAMP Research Symposium welcomed 93 attendees for video poster presentations, virtual live oral presentations, and guest speakers. 28 students presented from seven alliance campuses. In addition to the keynote speaker, the conference hosted a Graduate School Preparation and Tips panel. Dr. Cammi Valdez served as moderator with panelists; Dr. Ana Chicas-Mosier, Karina Flores, Ashlee Hawkins, Matthew Maxwell, and Jesse Velasco. This panel discussed their experiences as they moved through graduate school. The following OK-LSAMP scholars were recognized for their impressive research projects and presentation skills.

Life Posters

1st Place Cheyenne Daugherty, Oklahoma State University **2nd Place** Sierra Posey, Oklahoma State University **3rd Place** Brittney Conn, Oklahoma State University

Non-Life Posters

1st Place Abner Nimsey, Southwestern Oklahoma State University **2nd Place** Ashtyn McAdoo, Southwestern Oklahoma State University **3rd Place** Shawn Ray, Oklahoma State University

Oral Presentations

1st Place Saramarie Azzun, The University of Oklahoma **2nd Place** Caleb Watson, East Central University **3rd Place** Marissa Wilson, Langston University



Dr. Ngozi Ubani Ochoa



Cheyenne Daugherty 1st Place Life Poster Winner

Brittney Conn 3rd Place Life Poster

Caleb Watson 2nd Place Oral Presentation Winner



Shawn Ray 3rd Place Non-Life Poster

Sierra Posey 2nd Place Life Poster



Scholar Presentations

Louis Stokes Midwest Regional Center of Excellence 2020

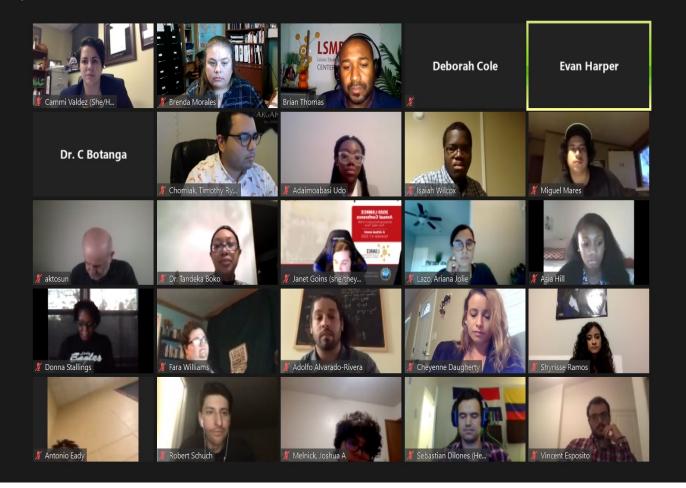
Broadening Participation in STEM: Pivot, Adapt, Thrive

2020 LSMRCE Annual Conference

Broadening Participation in STEM: Pivot, Adapt, Thrive

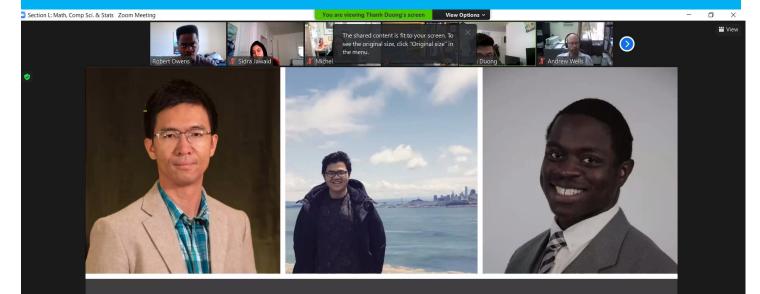
A virtual event November 6-7, 2020

The Louis Stokes Midwest Regional Center of Excellence conference Broadening Participation in STEM: Pivot, Adapt, Thrive, was held virtually, November 6-7, 2020.



OK-LSAMP Scholars and faculty

Robert Owens Presentation 2020 Oklahoma Academy of Science Technical Meeting



AN AUTOMATED QUALITY MEASURE OF SENTENTIAL PARAPHRASES

Designated Study Space

Where is your study space?

••

- How private is your study space?
- Does your study space have any other functions in your daily life?



Scholar Highlights



Sha'Kayla Love was a junior at Cameron University majoring in Physics. Love works with Dr. David N. McIlroy and he is the head and professor of the Physics department at Oklahoma State University.

She is part of the Minority Biomedical Research Support Program (MBRS) at California State University, Los Angeles. The research title of her project is called "Photometric Study of RR Lyrae Star TV Lyn".

From the article Photometric Study of RR Lyrae Star TV Lyn: "In this research, we are reporting the light curve of RR Lyrae type variable star TV Lyn. This star is o bserved in the northern hemisphere and its coordinates are 07:33:31.7 +47:48:09.8. We have used data from Las

Cumbres Observatory (LCO) which consists of a worldwide network of robotic telescopes. Photometric measurements were conducted using the SBIG 6303 0.4-meter telescope with a field of view of 29'x19'. Depending on what the color of a star is when different filters are applied to it, the luminosity will change accordingly. Our data consists of four filters, Bessell B (Blue), Bessell V (visual), SDSS-I (Infrared), and PAN-STARRS-Z (Near Infrared). Results show that this star has a variability period of 0.2407 ± 0.002 days, metallicity -1.49, and located at a distance of 1362 ± 118 pc. We have used an estimate of the reddening E(B-V) as 0.08. This research is a part of an Our Solar Sibling Project by an undergraduate student with the help of a faculty advisor and an Our Solar Sibling Project Investigator."

Love participated the Wichita Falls Chemistry Meeting, Women in Science , and Astronomy night to view objects in space conferences. She has also presented Research Day at the Capital in March 2020, Oklahoma Research Day at Weatherford, OK-LSAMP, Honors Research Summit and OAS. Love is involved with the Physics Club and the OSU Health Club. **Brenden Determann II** is a senior at Oklahoma State University majoring in Biochemistry. Determann II works with Dr. Karen Wozniak, assistant professor of the Department of Microbiology & Molecular Genetics at OSU.

He received the Kenneth & Hoye Harwell Scholarship 2020-2021, on the Deans list for Spring 2020 and part of Dr. Willson's lab. Determann II is interested to do cancer research and plans on applying to internships, looking at bone disease research. The research title of his project is called "Pulmonary Dendritic Cell Subset Interactons

with Cryptococcus neoformans". He is currently working on his paper with Ashlee Hawkins.





Fridad

Troy Adkins II is a senior at Oklahoma State University majoring Microbiology/ Cell & Molecular Biology. Adkins II works with Dr. Ashlee Ford Versypt, an associate professor at the School of Chemical Engineering, College of Engineering, Architecture and Technology at OSU.

This is his last year to be going to Tulsa as part of the St. Francis, Tulsa Medical Laboratory Sciences program. He received his CAN Certification in the Summer of 2019. His research title is "Kidney Physiology & Artificial Kidney Therapies (AY17-18)".

He got accepted into the Masters program of MS Health Care Administration, OSU-CHS.





Courtney Williams

Zsabre Wright is a senior at Langston University majoring Chemistry. She interned this summer 2021 for 2021 Stanford Summer Research Program – Amgen Scholars Program (SSRP).







Courtney Williams is a senior at Oklahoma State University majoring in Industrial Engineering & Management. Williams is working with Dr. Farzad Yousefian, an associate professor at the College of Engineering, Architecture and Technology at OSU.

She has received the RISE scholarship, Diversity scholarship, OCCF and OMA scholarship. The title of her research project is called "A predictive model for temperature in OK Wing Python (AY 19-20) Researching Healthcare (AY17-18)".



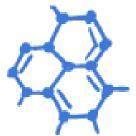




Zsabre Wright



Esmeralda Alcala



Esmeralda Alcala is a senior at the University of Oklahoma majoring in Microbiology. She works with Dr. Susan Schroeder, an associate professor in the Department of Biochemistry and Chemistry at OU.

Alcala submitted an abstract proposal to NCUR, participated in the Preparing for Higher Degree (PhD) Camp, The Leadership Alliance Summer Research-Early Identification Program (SR-EIP), and the Delaware Undergraduate Research Scholars. Her research work is called "The role of WRKY Transcription Factors in Virus Host". She states "*My project would be a bioinformatical data mining from the RNA seq data full time for summer 2020. My mentor, Dr. Schroeder, and I will meet weekly via Zoom. For this, I will continue learning python by taking the free online MITx".*

She got accepted to the University of Missouri for a Master's program.







Shawn Ray is a senior at Oklahoma State University majoring Mechanical Engineering. He works with Dr. Jerome Hausselle, an associate professor in the mechanical and aerospace engineering department at OSU. Shawn had an internship this summer 2021 for the Stanford Summer Undergraduate Research Fellowship (SURF).





Shawn Ray



Patricia Bazile is a senior at Langston University majoring Biology. She works with Dr. BriSohita Ojha, an associate professor in the Biology department at LU She is on the Deans Honor roll and was apart interning for the Virtual with NASA Lunar-BC.







Patricia Bazile

Lisa Egede is a senior at the University of Oklahoma majoring in Computer Science. She works with Dr. Jasmine Dehart, a PhD candidate in the Computer Sciences at OU. Lisa was apart of a Microsoft Research Internship in the Summer of 2020.













Joshua Anadu is a senior at Oklahoma State University who majored in Environmental Science. He worked with Dr. Ashley Burkett, an associate professor in Geology and OSU. He was involved with AIPG American Institute of Professional Geologists since 2019, Environmental Science Club since 2017, and also apart of the OSU Track team since 2017. He was has been accepted into PhD programs at UC Davis and

Georgia Tech and a Goldwater Scholar 20-21. He also has been admitted to Caltech.









Madison Stevens is a senior at Oklahoma State University majoring Natural Resource Ecology & Management (NREM). She works with Dr. Timothy O'Connell, an associate professor in the NREM at OSU. She interned in the summer of 2020 at the International Wolf Center research in Minnesota.



Brandy Herrera is a senior at the University of Oklahoma majoring in mathematics. During the summer of 2020, she interned for Harvard Summer Research Scholars Program. Summer 2020, June- August. Cambridge, MA. Data analyst for Dr. Emmerich Davies. Worked on building data sets for a global analysis of private academic expenditure.



Mahogany Mcknight is a junior at Langston University majoring in Biology. During the summer of this year 2021, they interned for Summer Honors Undergraduate Research Program-Harvard Medical School.



Kaci Craft is a senior at Langston University majoring in Biology. They are doing cancer research and last year in the summer of 2020 they got the opportunity to virtual Harvard Medical School.



Haifah Boureima H is a senior at the University of Oklahoma majoring in Electrical Engineering. She works with Dr. Jessica Ruyle, an associate professor in the Electrical and Computer Engineering at OU. She conducted 10 hours a week working on developing MATLAB/Simulink models of distribution grids with high penetration of photovoltaic power, OU LEEPS (Laboratory for Electrical Energy & Power Systems) and has been accepted to the University of Berkely in California.









Daniel Salinas Hernandez is a senior at Oklahoma State University majoring in Mechanical Engineering. He worked with Dr. Kurt Rouser, an associate professor in Mechanical and Aerospace Engineering. He is a part of Hispanic Student Association, SHPE member, Sigma Alma Beta and held officer position 20-21. He got admitted to Clemson University -Automotive Engineering Master Program.





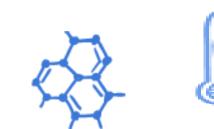






Sergio Mares is a senior at Oklahoma State University majoring in Biochemistry. He worked with Dr. Marianna Patrauchan, an associate professor in the Microbiology & Molecular Genetics at OSU. He has an REU at Interdisciplinary & Quantitative Biology (IQ BIO REU), University of Puerto Rico, Rio Piedras (online). He got admitted to the University of Berkely, California.





Tolulope (Emmanuel) Akinwale is a senior at Oklahoma State University in Industrial Engineering & Management. He worked with Dr. Farzad Yousefian, an associate professor in the Industrial Engineering & Management. Tolulope had an intern summer 2020 in Spirit Aerosystem - Volteria Ventilator Project.







OUTSTANDING MENTOR: ELIZABETH NALLEY



Elizabeth Nalley is a professor of Chemistry at Cameron University. She and mentee Theresa Hinkle, a Cameron senior, have been matched for two years.

"Dr. Nalley has been a tireless advocate for underrepresented students in STEM," shared Director Brenda Morales. "She has mentored over 100 undergraduates by providing them experience through chemistry research. Dr. Nalley's mentorship has allowed students to gain valuable research experience that has led them to a successful completion of their undergraduate careers as well as pursuit of masters and doctorate degrees."

In addition to working with students in their research, Dr. Nalley loves helping students prepare to present their research at scientific conferences. Theresa Hin-

kle shared, "Dr. Nalley worked with me on being a better and more knowledgeable presenter so that now I present my research at many national and international conferences."

"Dr. Nalley has been there for me, offering me personal counsel and support dur-



ing a hard time in my life," shared Hinkle. "To be honest, before Dr. Nalley's help I questioned if I would even finish college. Now I'm graduating this December

with not one but two degrees and have no doubt I'll be competitive for any doctoral program."

> Mentee: Theresa Hinkle Years Matched: Two



OK-LSAMP ALUMNI UPDATES



Ornella Nelson- was an LSAMP Student when she attended Cameron University. She's completed her Ph.D. at Cornell in 2019 in Chemistry and Chemical Biology. She received an award as a top graduate student.

She is now a Senior Scientist at ABBVIE.









Alex Rivas– was an LSAMP scholar at Cameron University. He finished medical school the University of Arkansas at Little Rock.







Kayla Davis– an OK-LSAMP Alumni has a Ph.D. in Biological and Biomedical Sciences from Harvard University. Kayla studied mitochondria movement machinery in the laboratory of Thomas Schwarz and discovered a mechanism that regulates mitochondria motility .

She is currently working as A Neurology Research Fellow at Boston Children's Hospital and Harvard University . In the future, she hopes to pursing a post doctoral fellow-ships in Science Policy.

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Casandra Salinas is a recent graduate from Oklahoma State University. Majoring in Biochemistry and Molecular Biology, Salinas was chosen as a speaker at the 2020 Education Day at the Capitol. She has received several awards including the SACNAS outstanding poster, BIO division in the KAUST UG poster competition. At Oklahoma State she was also involved in Hispanic Student association as well as a member of Sigma Lambda Alpha

Fernando Salazar–Salas is a graduate of East Central University. He received a degree in Physics. With his time at ECU, he attended the McNair Research poster session, the OK-LSAMP Preparing for Higher Degrees Camp, and the McNair Research Conference in Denton, Texas. Salas was also a NASA Scholar and a member of Sigma Pi Sigma.

Sorority, Inc.





Haifah Sambo, an University of Oklahoma scholar who recently graduated with an Electrical Engineering degree, will start her graduate studies program at the University of California, Berkeley in the fall. While at OU, she worked on the development MATLAB/ Simulink models of distribution grids with high penetration of photovoltaic power while simultaneously being a research assistant. Haifah was also involved in Society of Women Engineers as well as Navy Promotional Day.





Courtney Williams, graduated with a degree in Industrial Engineering from Oklahoma State University. While at OSU, she served as the president of Alpha Kappa Alpha Sorority, Inc. She also served as the NSBE parliamentarian, Minority Women's Association vice president, and was a Kiewit Field officer intern in Louisiana. She has accepted a full time offer with Hilti as a Technical Support Engineer.

OK-LSAMP SCHOLAR GRADUATES

<u>2019</u>

LaDaryn Lockett, Oklahoma State University Animal Science

2020

Aaron Austin, Oklahoma State University **Physics** Avery Slavin ,Oklahoma State University Architecture **Bailey Spears, Northeastern State University** Chemistry Casandra Salinas, Oklahoma State University Biochemistry and Molecular Biology Gary Hall, Oklahoma State University Electrical Engineering Raegan Eaton, Oklahoma State University **Biochemistry** Jailene Canales, University of Central Oklahoma Biology Theresa Hinkle, Cameron University Chemistry Ladaryn Lockett, Oklahoma State University Animal Science Katie Easter, Northeastern State University Natural Science **Caleb Watson, East Central University** Architecture **Essences Ewing, Oklahoma State University** Microbiology & Cell and Molecular Biology Nicholas Hazell, Oklahoma State University Microbiology & Cell and Molecular Biology

Javier Lopez Armendariz Mechanical Engineering Madison Stevens, Oklahoma State University Natural Res Ecology & Management

2021

Esmeralda Alcala, University of Oklahoma Microbiology Leslie Blash, Cameron University Cellular and Molecular Biology Erik Anidino, Oklahoma State University Industrial Engineering & Management Valentin Brito, Oklahoma State University Mechanical Engineering Julia Ceniceros, University of Oklahoma Biochemistry Kaci Craft, Langston University Biology Kaylee Craig, Cameron University Organismal Biology Stacii Cross, Langston University Biology Alexis Ditren Santos, Cameron University Biology & Cellular and Molecular Biology Allexus Frazier, Langston University **Computer Science** Brandy Herrera, University of Oklahoma *Mathematics* **Destiny Madden, Langston University** Biology Michael Merritt, Langston University Computer Science Alexis Coles, Oklahoma State University Entomology

OK-LSAMP SCHOLAR GRADUATES

<u>2021</u>

Taylor Coles, Oklahoma State University Entomology Trey Biddy, Southwestern State University Engineering Technology Getsemani Garcia Perez, East Central University Biology **Celois Moore, Langston University** Biology Pamela Okaro, University of Tulsa Chemical Engineering Isis Frazier, Oklahoma State University Computer Science Brittney Conn, Oklahoma State University Microbiology & Cell and Molecular Biology Cheyenne Daughtery, Oklahoma State University Microbiology & Cell and Molecular Biology Brenden Determann II, Oklahoma State University **Biochemistry** Brenden Dominick, Oklahoma State University Mechanical Engineering **Tajinee Porter, Langston University** Biology Blanca Rodriguez, Cameron University Biology & Cellular and Molecular Biology Noel Hernandez Jr, Oklahoma State University Construction Engineering Tech Colby Hill, Oklahoma State University Physiology Haifah Boureima Sambo, University of Oklahoma Electrical Engineering Hugo Sanchez Chavez, University of Central Oklahoma Entomology

Brandon Henriguez, Oklahoma State University Entomology Richard Lynch Jr, Oklahoma State University Chemical Engineering Sergio Mares, Oklahoma State University Biochemistry Madyson Saulsberry, Langston University Biology Catalina Perez, Oklahoma State University Zoology Donovan Scott, University of Central Oklahoma Mechanical Engineering **Bailee Posey, Oklahoma State University** Entomology Sierra Posey, Oklahoma State University Microbiology & Cell and Molecular Biology Joseph Wagner, University of Central Oklahoma Mechanical Engineering Hallie Weaver, Langston University Chemistry Scott Wilson, Cameron University **Physics** Fernando Salazar-Salas, East Central University **Physics** Lizbeth Robles, East Central University Molecular Biology Troy Adkins, Oklahoma State University Microbiology & Cell and Molecular Biology Daniel Hernandez, Oklahoma State University Mechanical Engineering

OK-LSAMP SCHOLAR GRADUATES

<u>2021</u>

Heath Steward, Oklahoma State University Natural Res Ecology & Management Courtney Williams, Oklahoma State University Industrial Engineering & Management Abner Nimsey, Southwestern Oklahoma **State University** Chemistry Morgan Blake, Southeastern Oklahoma State University Biology Lexus Thomas, Southeastern Oklahoma State University Medical Sciences Double Major **Tolulope Akinwale, Oklahoma State University** Industrial Engineering & Management Joshua Anadu, Oklahoma State University **Environmental Science** Rosemary Guevarra, Oklahoma **State University** Microbiology & Cell and Molecular Biology Makayla Elliston, Oklahoma **State University**

Congratulations Graduates! The world is yours!









Esmeralda Alcala—OU

Sergio Mares – OSU



Internships/ NSF-REU Summer 2021

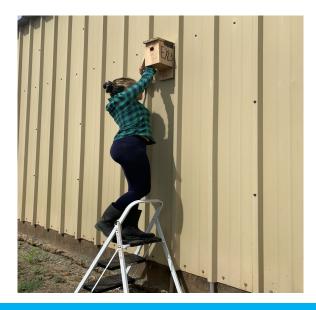
Paola Salazar was a part of the 2021 Summer Avian Physiological Ecology job, a funded NSF project working under Dr. Grindstaff lab at Oklahoma State University.

"The research project helped me examine the influence of rising global temperatures on life-history traits in house sparrows comparing from the north to the south. The project data would be collected from multiple sites in Stillwater, Oklahoma. I learned how to measure and record house sparrow chick's tarsus, beaks (depth and width), wing, pin and mass with multiple field tools. Eggs were also measured. We would monitor nest 2-3 days

from our nest boxes and I would get exposure to different avian species nest and eggs. It was an amazing experience to learn how to collect blood from young house sparrows with a needle and processed it in the lab, making blood slides. My primary focus studied various bird communities and house sparrows altering change in multiple sites in three differ years. I would began bird watching with the use of a binocular and a notebook to keep track of bird activity out in the field sites using a Point count Survey method to keep track. Thanks to OK- LSAMP and other scholar programs, I got to present my bird research at the Summer Research Symposium Expo and provide important on avian species."







Tevin James was a part of a REU at Georgia Southern University during Summer 2021!

"I had the privilege of being one of the 11 students attending this amazing REU in Georgia Southern University located in Statesboro, Georgia. For my research, it was based on CFDs (Computational Fluid Dynamics) and analyzing Fluid Dynamics Over Turbulent Flows, where we would be given objects such as: Pipes, Combustors, Scramjets, and Airfoils (specifically NACA 0012 airfoils)! It was all analyzed through a fluid flow software called "ANSYS." It was a whole new program for me to learn, however, it was worth it in the end! This was an experience that I will never forget, and thanks to LSAMP, I was able to attend a summer research internship that I will never forget! Side note, the second photo was of me paying a visit to one of my colleagues' research lab to check out their hand-motion sensor drone, and let's just say ***this is me**





Program Staff



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LOUIS STOKES & LSAMP



In 1991, the National Science Foundation created six multi-institutional Alliance for Minority Participation (AMP) programs. **Congressman Louis Stokes'** name was added to the program.

Before his passing in 2015, **Louis Stokes** was an American attorney and politician. He served 15 terms in the United States House of Representatives and was the first Black congressman elected in the state of Ohio. Congressman Stokes played a pivotal role in the quest for civil rights, equality and social and economic justice throughout his tenure in the United States Congress. The LSAMP community and the nation has lost a great man. You can read all about Congressman Stokes' career at:

http://history.house.gov/People/Detail?id=22311

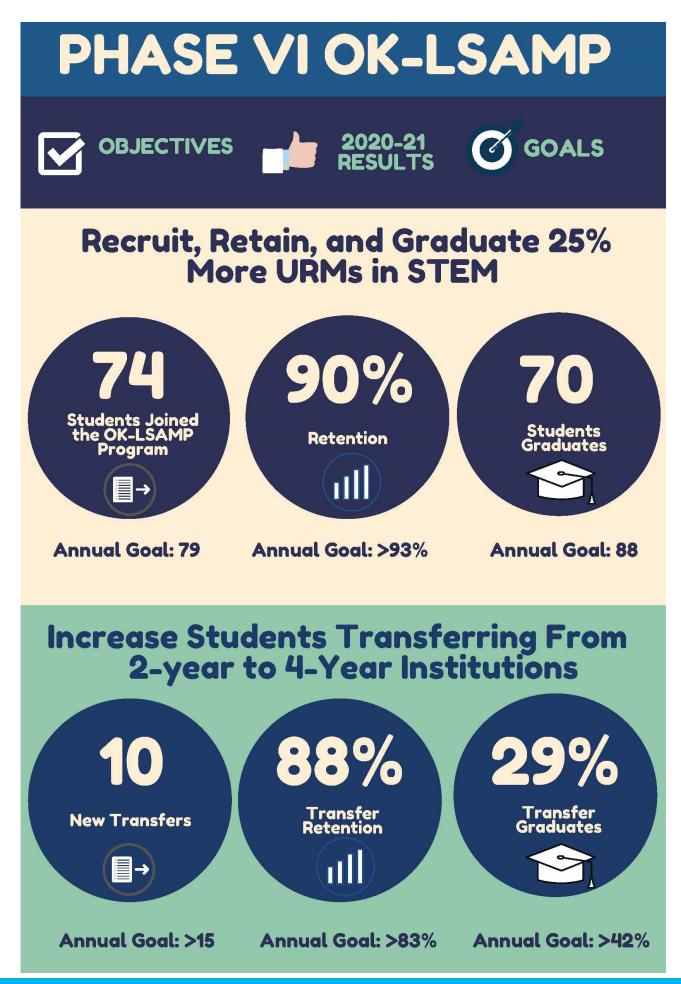
Dr. A. James Hicks was named LSAMP program director in 1997. He received a Ph.D. in biology from the University of Illinois at Urbana and additional training at Harvard University, the National Institutes of Health, and the Missouri Botanical Gardens. When Dr. Hicks took over LSAMP, there were 25 Alliances in the nation. Today, there are more than 40 active LSAMP alliances with over 800 colleges and universities involved in increasing the quality and quantity of students from underrepresented populations who receive degrees in science, technology, engineering, and mathematics.



A Brief History of OK-LSAMP

In 1992, the Oklahoma State Regents organized the Oklahoma Alliance for Minority Participation in Science, Engineering, and Mathematics (OKAMP SEM). Dr. Earl Mitchell, Oklahoma State University (OSU) Professor, was chosen to serve as Chair of the Alliance. In 1993, Dr. Mitchell, with the help of Dr. Ann Ackerman from South Oklahoma City Junior College, wrote and submitted an AMP proposal to the National Science Foundation (NSF). Included in the proposal was additional matching support for the program at the regional universities provided by the Oklahoma State Regents for Higher Education. In 1994, OSU, as the lead institution, along with seven partner institutions was awarded the grant. The OKAMP program was established to address the critical undersupply of minority students pursuing BS degrees in Science, Mathematics, Engineering, and Technology (SMET).

Today, 12 Oklahoma institutions of higher education make up the Oklahoma consortium. Through the years, many changes have been made including the addition of Congressman Louis Stokes' name to the AMP programs nation-wide, and the change of SMET to Science, Technology, Engineering, and Mathematics (STEM). A graduate school initiative - the Bridge to the Doctorate (BD) program was implemented with Oklahoma providing graduate support for 9 cohorts of BD Fellows since the BD initiative began.



Increase the Number of Scholars Gaining International Experiences by 30%

Students have had international experiences Countries where students did academic work International experiences canceled due to COVID-19

Annual Goal: 16 International Experiences

Increase Graduate School Participants by 25%

B Scholars Were Accepted to Graduate School

Annual Goal: 30 Scholars Enter Graduate School





WHAT IS OK-LSAMP?

DIVISION OF

INSTITUTIONAL DIVERSITY

Funded by National Science Foundation (NSF), the program is a partnership of Oklahoma colleges and universities.

Together these schools develop programs aimed at increasing the number of minority students who receive STEM degrees.

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