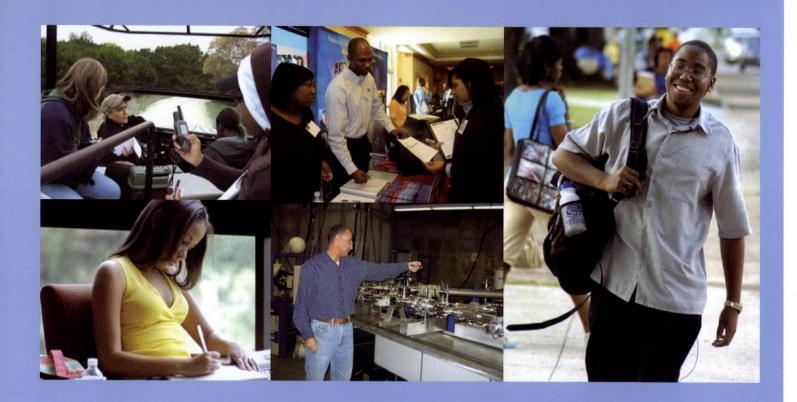
LOUIS STOKES Louisiana Alliance for Minority Participation LS-LAMP Awarded 1995

2008 JOURNAL



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Director's Message

Dear Readers:

From its inception in 1995, the Louis Stokes Louisiana Alliance for Minority Participation (LS-LAMP) has been committed to its mission to significantly increase the number and quality of minority students earning degrees in science, technology, engineering and mathematics (STEM) disciplines and transitioning these degree holders to graduate school with the emphasis on the Ph.D. This edition of the Journal mostly highlights our scholars and their accomplishments in their respective concentration areas.

As reported to NSF, LS-LAMP has significantly increased its STEM BS degree production of underrepresented minorities from 2007 to 2008. The 2007—2008 degree production of 627 is 8.5% higher than the 578 of 2006— 2007. This major accomplishment is an indication of LS-LAMP progressive recovery from the historic devastation by Hurricanes Katrina and Rita in 2005.

Additionally, in 2007—2008, LS-LAMP vigorously engaged 226 STEM students in research and 127 students attended regional and national conferences. This extensive and substantive research participation by LS-LAMP STEM students partly explains the significant graduate school attendance and success of LS-LAMP Alumni.

We recognize that one of our most important contributions to the STEM enterprise rests on the effective and efficient preparation of our scholars. We continue to encourage our scholars as they prepare to be our next generation of scientists, technologists, engineers and mathematicians.

Our campus coordinators, departmental mentoring coordinators, STEM faculty and staff continue to excel in providing leadership and guidance to our scholars by working together in an interactive and success driven manner. The students are being empowered by their education and in many cases have become leaders in their areas of endeavor. We congratulate the entire LS-LAMP family for continuing on their strive to excellence.

Sincerely,

Diola Bagayoko, Ph.D. LS-LAMP Project Director



"The 2007-08 degree production of 627 is 8.5% higher than the 578 of 2006 -07. This major accomplishment is an indication of LS-LAMP progressive recovery fromHurricanes Katrina and Rita in 2005."

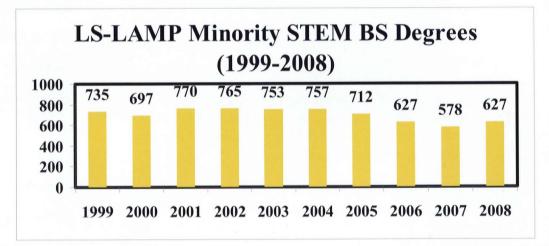
Scholars Continue to Succeed

Bridge to Doctorate (BD) Scholars, Degree Production, Ph.D. Recipients

BD Scholars Attend JAM 2008 & Visit U.S. Senator Mary Landrieu

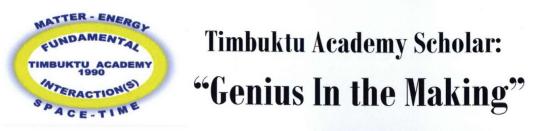


Twenty LS-LAMP BD scholars attended the 2008 Joint Annual Meeting (JAM 08) and made technical poster presentations on their research findings. The scholars also visited U.S. Senator Mary Landrieu while in Washington, D.C. The LS-LAMP BD program is housed on the campus of Louisiana State University.



2007 – 2008 LS-LAMP Alumni Ph.D. Recipients

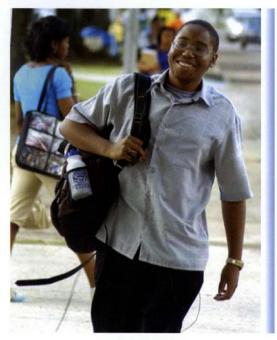
Graduate	Major	Undergraduate Institution	PhD Institution
Bennett, Cecily	Biochemistry	University of New Orleans	Tulane University
Cole, Derek	Bio/Life Sciences	Southern University and A&M College	Louisiana State University
Decuir, Eric, Jr.	Microelectronics-Photonics	University of Louisiana at Lafayette	University of Arkansas
Quinones,	Geosciences	Tulane University	Louisiana State University
Stewart, Anthony	Materials Science and Engineer-	Southern University and A&M College	University of Florida



Polite Stewart, Jr., a 14 year old college freshman, LS-LAMP Affiliate and Timbuktu Academy Scholar, scored a composite 30 out of 36 on the ACT. Recently featured in Ebony, Diverse Issues in Higher Education and the Black Collegian Online, the young scholar has turned down offers from schools all over the country, including Harvard, Princeton and Yale to attend Southern University in Baton Rouge, a historically black college and university beginning Summer 2008. Polite follows in his parents' footsteps by becoming part of the "Jaguar Nation" as a physics major and pre-med student.

Polite was home schooled by his parents until the age of 10, when they decided that additional help was needed. It was then that the family decided to enroll Polite in the Timbuktu Academy, a national model program at Southern University that mentors pre-college, undergraduate and graduate students in math, science, and engineering. "I learned so much in the Timbuktu Academy. They challenged me and pushed me to excel," says Polite.

Dr. Diola Bagayoko, director of the Timbuktu Academy, says the Southern University mentoring not only helped this "genius in the making" build on his home-schooling from an academic standpoint, but also with his ability to interact with fellow classmates.



Bagayoko says he has taught thousands of students over the past 24 years, but has only seen four other students that are in Stewart's class. "And all four of them went on to become grand student marshals here at Southern," Bagayoko says, referring to the honor reserved for the graduate with the highest cumulative grade point average.

Stewart still mows the lawn, takes out the garbage, and does chores around the house. He also likes to play video games and enjoys playing sports, but concedes that he has little time for them after his school work. Visit the Academy website at www.phys.subr.edu/timbuktu.htm

1. Cacey Stevens - Spring 08

- 2. Kelly Bogle Fall 2006
- 3. Jonathan Goins Fall 2006
- 4. Divine Kumah Summer 04
- 5. Anthony Pullen Spring 04
- 6. Kimberly Wright Fall 03
- 7. Michael Ashenafi Fall 02





Scholars Strive for EXCELLENCE!!!

Grambling State University (GSU)

Phillips Wins UNCF Merck Research Scholarship



Eual Abraham Phillips, Jr., a GSU junior Chemistry major, was awarded a \$25,000 United Negro College Fund Merck undergraduate science research scholarship for the 2008 to 2009 academic year. The scholarship award is a competitive award open to underrepresented groups pursuing degrees in science, engineering and mathematics. Phillips was one of fifteen recipients, representing universities throughout the United States. The scholarship is to be applied toward tuition and fees. As a condition of the scholarship, Phillips will intern at a Merck Research Laboratory in 2008 and 2009, receiving additional compensation for the summer experiences.

Mayo Scores Perfect 800 on Math Section of GRE

Talea Mayo, a GSU LS-LAMP Scholar, earned a perfect score of 800 on the mathematics portion of the Graduate Record Examination. Mayo received the Bachelor of Science degree in mathematics in May 2008. She has been admitted to the School of Engineering and Applied Sciences Ph.D. program at Harvard University.

Initially enrolled at Grambling as a Criminal Justice major, Professor Sharma quickly noticed this freshman in a Calculus III class of juniors and seniors. She had a passion for mathematics and exceptional abilities. Soon afterwards, Talea changed her major to her true passion — mathematics.



Scholars Present at LAS 82nd Annual Meeting



Grambling State University (GSU) LS-LAMP Scholars Johnte Bass and Jessica Harris presented their research at the 82nd Annual Meeting of the Louisiana Academy of Sciences. The meeting was held March 14, 2008, on the campus of Northwestern State University in Natchitoches, Louisiana. Bass, a sophomore physics major, placed second in the poster competition. His research topic was *Preparation and Characterization of Sol-gel Alumina Supported Bimetallic Nanocatalysts for WGS Reaction.* Jessica Harris, a senior physics major, also presented her research on *Building Optical Spectroscopic Datacubes of Infraredluminous Galaxies*, previously conducted at Vanderbilt University.

Fossil Rim REU Continues

University of Louisiana at Lafayette

Scholars Lewis & Robinson Continue Research Adventure

Andrea Lewis, ULL LS-LAMP scholar, continues her research adventure with Fossil Rim Wildlife Center. During UL's Spring Break, Andrea and fellow LS-LAMP student Brandi Robinson were given the unique opportunity to participate in an exclusive REU created by UL Lafayette LS-LAMP Program Assistant Sonja Solomon. The REU was developed to provide a complete cycle of research education on a longterm, on-going project. All information collected contributes to the actual project. Andrea's work with Texas A&M Wildlife and Fisheries Professor Dr. Jane Packard and Fossil Rim Conservation Manager Curt Decker focuses on the Conservation Dependant Waterbuck and manage-



Pictured is Andrea (far right) taking GPS readouts, Texas A&M Grad Assistant Renee Jones, Dr. Jane Packard, and (far left) is Texas A&M Undergraduate Student Assistant Heather Chance.



Pictured is Andrea using binoculars to do fieldwork with Dr. Packard and Texas A&M research team.

ment of the hoofstock species on private lands. UL Lafayette Biology Professor Dr. Caryl Chlan is Andrea's UL Campus Mentor and has been instrumental in developing the next step of the REU which is presentation of the Waterbuck study. Andrea Lewis will present her research on "Herd Health: Study of Waterbuck (Kobus ellipsiprymnus) Behavior in Relation to Resources" at ABRCMS '08. Accompanying her are fellow LS-LAMP research students Brandy Robinson, a junior in Animal Science who contributed to the REU, and Amber Wilson a junior in Biology. Please go to <u>http://blogs.tamu.edu/</u> <u>hoofstock/about/</u> for more information on the project and the people involved.

AMERICAN INSTITUTE OF PHYSICS Information that matters®

The American Institute of Physics (AIP) recently listed three Physics Departments at LS-LAMP institutions on the list of Top 20 Universities that produced more than 55% of the Physics graduates in the country. These physics departments reported conferring 15 or more bachelor's degrees to African Americans between 1998 and 2007. The institutions include:

(1) Dillard State University: Dr. Abdalla Darwish*

- (2) Grambling State University: Dr. Milford Greene*
- (3) Southern University and A&M College: Drs. Diola Bagayoko and Ella Kelley*

*Drs. Darwish, Greene and Kelley are the LS-LAMP campus coordinators, while Dr. Bagayoko is the statewide project director.

Source: AIP Statistical Research Center, Enrollment & Degrees Survey

Scholars & Faculty Engage in Research Activities Research Laboratory Visit and Faculty Research Workshop

ULL Scholars Visit LAC Research Laboratory



Pictured is UL Lafayette LAC Operations Manager Nicholas Pastore.

UL Lafayette LS-LAMP students made a site visit to the Louisiana Accelerator Center (LAC). The center is engaged in active research programs emphasizing biomaterials analysis, microfabrication and high energy focused ion beam system development. Operations Manager Nicholas Pastore

and Administrative Assistant Stacie Thomas welcomed the group into the facility for a personal after-hours tour. Mr. Pastore described how LAC's microfabrication process contributes to the world of history, nanotechnology and space exploration. On display at LAC is a detailed microetching of the state of Louisiana on a grain of rice which beautifully demonstrates the fine precision of LAC's proton beam; spots smaller than 1 µm x 1 µm (micrometer) can be achieved. LS-LAMP students are extremely fortunate to visit this site since the Louisiana Accelerator Center at UL Lafayette is one of only 25 such research labs located in all of North America. A few other locations include Berkeley, Cornell, Indiana U, Michigan State, and the Stanford Linear Accelerator Center which boasts of having the nation's long-Please visit LAC at http:// est building. lac.louisiana.edu/ and http://www-elsa.physik.unibonn.de/accelerator list.html for a list of accelerators found around the world.

SUNO Faculty Participate In Math Research Workshop

On August 11-15, 2008, twenty (20) participants from thirteen (13) institutions participated in research experiences in linear algebra and number theory workshop for undergraduate faculty at the American Institute of Mathematics (AIM) facilities in Palo Alto, CA.

This workshop was organized by Dr. Joe Omojola, SUNO LAMP campus coordinator and two other faculty members from FAMU and Spelman College. The purpose of the workshop was to equip HBCU faculty members with research tools to mentor students for succeeding in mathematics at the graduate school level.



Scholars Receive Research Fellowship & Awards

Southern University and A&M College

PAGE 9

SUBR Scholar Wins Prestigious NSF Graduate Research Fellowship, Serves as Student Grand Marshal

Cacey Stevens, an LS-LAMP Affiliate and Timbuktu Academy Scholar and Physics major, was selected to receive a 2008 National Science Foundation (NSF) Graduate Research Fellowship (GRF) award. Cacey was selected based on her abilities and accomplishments as well as her potential to contribute to strengthening the vitality of the U.S. science and engineering enterprise. The fellowship includes \$30,000 of stipend per twelve-month year. Fellowships are funded for a maximum of three years and can be used in any three, year-long units over a five-year period after the initial award.

Stevens has been admitted with full financial support to the University of Chicago in its doctoral program to pursue studies in Fluid Dynamics. "I am delighted and blessed to have won such an award. This fellowship will help me to concentrate on my doctoral studies without having to worry about financing my education. I credit my accomplishments to my mother, to my professors at Southern University and to my hard work," says Ms. Stevens. Dr. Diola Bagayoko, director of the Academy, and academic advisor and mentor to Cacey says, "Cacey earned this prestigious and lucrative fellowship through her scholastic achievements, research performance and her past and potential contributions to society".

Cacey also served as the Chief Student Marshal for the Spring 2008 commencement exercises at Southern University and A&M College in Baton Rouge. Serving as Grand Student Marshal is the honor reserved for the graduate with the highest cumulative grade point average.



Scholars Receive Science & Engineering Alliance Awards



Three (3) scholars of the SUBR LS-LAMP program received the Science and Engineering Alliance (SEA) Undergraduate Scholarship Award (\$1000) which was presented at the culminating Gala of the 18th Annual Science and Engineering Alliance (SEA) Student Technical Conference in Gaithersburg, MD during the Spring 2008 semester.

Scholars receiving awards included: Frank Alexander, a senior electrical engineering major with a cumulative 3.5 GPA (Presentation Title: "Red Blood Cell (RBC) Tracking Using Template Matching"), Deidra Boley, a junior civil engineering major with a cumulative 3.72 GPA (Presentation Title: "Gulf Coast Disaster Management"), and Janaé Miller, a senior chemistry major with a cumulative 3.77 GPA (Presentation Title: "RNA Targeting Drug-like Molecules Through Nuclear Magnetic Resonance (NMR) Toward Drug Discovery").

NATIONAL ROLE MODELS

National Role Models & Fall Invitational

LS-LAMP Professors & Scholar Receive National Role Model Award

Dr. Su-Seng Pang, LS-LAMP/LSU Co-Coordinator; Dr. Murty Kambhampati, LS-LAMP/SUNO STEM Faculty and Ms. Carmen Maldonado, SUNO LS-LAMP Scholar received the National Role Model Awards, sponsored by Minority Access, Inc. These recipients were honored with this prestigious award during the "Ninth National Role Models Conference," held at Washington, D.C. on September 26-29, 2008.



Dr. Su-Seng Pang



Dr. Murty S. Kambhampati, Dr. Joe Omojola, Ms. Carmen Maldonado and Ms. Andrea D. Mickie (President, Minority Access, Inc.)

SUBR Scholars, Faculty & Staff Attend ULL Fall Invitational



Southern University and A&M College LS-LAMP Scholars attend Fall Invitational at University of Louisiana at Lafayette

Eight (8) students, one (1) faculty member, and one (1) staff member from the LS-LAMP Program at Southern University at Baton Rouge participated in UL Lafayette Fall Invitational held November 14-15, 2008.

LS-LAMP Scholar, Kendrick Johnson (Chemistry major), gave a poster presentation on the "Role of ROCK1 in Catecholamine Cardiomyopathy" which was research that he conducted during the summer of 2008 at Indiana University School of Medicine. Timbuktu Academy Scholar, Theodore Newell (Computer Science major), gave an oral presentation on "GPU vs. CPU: Matrix-Matrix Multiplication."

Ms. India Anderson (Physics major) presented a poster on "Using Ultraviolet Spectroscopic Data to test Solar Coronal Models" and Ms. Quiana Jones (Psychology major) made an oral presentation on "Early Sexual Behavior in African American Adolescents." Christine Bias, Brittany Davis, Kenyata Fountain, and Houman Habibzhani (graduate student) from the Department of Computer Science, and Collin Warner from the Department of Electrical Engineering, conducted a group presentation on the program and sensor development and visual component of Robotics, a hexagonal robot.

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LS-LAMP PARTNER INSTITUTIONS – Campus Coordinators



Southern University and A&M College (Lead Institution) • Dillard University - Grambling State University Louisiana State University - Louisiana Universities Marine Consortium - McNeese State University - Nunez Community College Southern University at New Orleans—Southern University Shreveport

Tulane University - University of Louisiana at Lafayette - University of New Orleans

LS-LAMP Statewide Management Office

Diola Bagayoko, Ph.D. Project Director Kerry Davidson, Ph.D., Co-Principal Investigator Luria Stubblefield, Ph.D., Co-Principal Investigator Brenda McNeely, Program Administrator Saleem Hasan, Ph.D., Program Evaluator Tamiara L. Wade, Director of Outreach Operations

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