LSU Science e-NEWS



SEPTEMBER 2014 | Official newsletter of the LSU College of Science

NEWS/EVENTS



U.S. News & World Report's 2015 Edition of Best Colleges Ranks LSU in the Top Tier for "Best National Universities"

LSU is ranked 63rd overall among public universities, up five spots from last year. These rankings are based on retention rates, assessment by peers and counselors, faculty resources, student selectivity, financial resources, graduation rate performance, and alumni giving.

Chancellor F. King Alexander said he is grateful for the honor, but points out that U.S. News and World Report left out measures of "real value," such as tuition rates, career outcomes and debt after graduation. Measured up to these values, LSU graduates are some of the best in the country.

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West Feliciana Schools, LSU Pilot Program to Better Prepare New Science and Math Teachers

The West Feliciana School District and LSU are collaborating on an innovative, replicable teacher preparation program that equips teachers with the content knowledge and teaching techniques needed to prepare students to be academically successful and college- and career-ready.



LaTeach, a \$125,000 grant awarded through the Louisiana Department of Education, partners West Feliciana and six other high schools statewide with universities as part of the program. Through the "Believe and Prepare" program, West Feliciana is partnered with LSU on a one-year residency designed for science, technology, engineering, and math teacher candidates.

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Geology Exhibit Revitalizes Howe-Russell Kniffen Museum Hall

Summer 2014 saw the debut of a new exhibit outside room 130 in Howe Russell Kniffen Museum Hall. The new display better reflects the exciting research the Department of Geology & Geophysics has been up to in recent years. Panels mounted on the walls explain various topics covered in introductory Geology classes-many conveniently taught in 130- in hopes of attracting new students to the department. Down "Geo-news Alley," magnetic poster-board panels make it simple for students to practice their presentations skills. New furniture sits outside classrooms for students to relax or study on. In front of the panels, new display cases exhibit fossils and finds from LSU explorations. Across from the magnetic presentation boards, a new geological map and TV for department news and updates invite student interest.

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First-year Students Learn Essential Skills for College Success at LSU Geaux Academic Workshop

The first semester of college can be exciting and a bit overwhelming for first-year students. To meet the needs of the College of Science's newest additions to the Tiger family, the college and LSU's Center for Academic Success sponsored Geaux Academic, a program for first-semester and transfer students designed to equip students with the essential skills to make a successful transition to college. During the 1.5 hour workshop, students learned time management skills, learning strategies, and key test taking skills.

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LSU Birding Team Gears Up for Big Day Peru Event and Fundraiser

LSU's award-winning birding team, the Tigrisomas, will be traveling to Peru to break the world Big Day record and raise awareness and funding for the graduate students and curators in the LSU Museum of Natural Science conducting discovery-based research on the biological diversity in the threatened habitats of the Andes Mountains and the Amazon Basin.

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College of Science Co-sponsors 3rd Annual Health Professions Career Fair, Oct. 6

The College of Science, Olinde Career Center and LSU Chapter of Alpha Epsilon Delta is co-sponsoring a Health Professions Career Fair, Oct. 6 in the LSU Student Union Royal Cotillion Ballroom from 10 a.m. to 2 p.m. The fair will include representatives from the areas of medicine, dentistry, nursing, physical therapy, pharmacy, optometry, psychology, chiropractic, naturopathic medicine and psychology. The fair is free and open to all majors and all classifications.

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LSU to Hold Super Science Saturday, Oct. 11

Hundreds of future scientists and science enthusiasts will pack the PMAC Saturday, Oct. 11 for Super Science Saturday, a free family-friendly event to help students in K-12 grade get excited about science.

From noon to 4 p.m., activity stations will line the upper level concourse of the Pete Maravich Assembly Center offering demonstrations and hands-on activities that allow the students to experience science for themselves.

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Hill Memorial Library to Host "STEM and Beyond" Open House, Oct. 7

LSU Libraries Special Collections will host an open house Tuesday, Oct. 7,



from 3 p.m. - 6 p.m. in the Hill Memorial Library. The theme for this year's open house is "STEM and Beyond," and will feature rare and unique materials that relate to the STEM disciplines - science, technology, engineering and mathematics.

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LSU's George Cochran Takes Top Honors in Doubles Croquet at U.S. National 9-Wicket Championship

LSU Department of Mathematics Professor George Cochran brought his work in probability and chance out to play at the 2014 9-Wicket Croquet National Championship. He and his partner won their third consecutive doubles croquet title last weekend in Kansas City. Congratulations to Dr. Cochran!

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Dean Cynthia Peterson Interviewed for LSU 'Ask 5' Video

LSU's "Ask 5" videos features students faculty and staff answering five questions relative to LSU or their field of study. Check out the latest "Ask 5" segment featuring LSU College of Science Dean Cynthia Peterson.

>View the full interview

KUDOS



M. Blackwell



S. McGuire



G. Thomas



S. Warny



I. Warner



S. Wischusen

Meredith Blackwell, LSU System Boyd Professor, biological sciences, is one of nine founding Fellows of the International Mycological Association in recognition of her "Research excellence and service to global mycology." Blackwell also attened the Tenth International Mycological Congress in Bangkok, Thailand in August where she was awarded a DeBary Medal for her outstanding career contributions to mycological research.

Three LSU faculty and staff received awards during the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Annual Conference, Sept. 23-26. Award winners included **Isiah Warner**, vice chancellor, Office of Strategic Initiatives and Philip W. West Professor of Analytical and Environmental Chemistry, **Saundra McGuire**, chemical education professor emeritus and director emerita of the LSU Center for Academic Success, who received NOBCChe Lifetime Achievement Awards, and **Gloria Thomas**, executive director of the Office of Strategic Initiatives, who received the "Mentor on the Map" NOBCChE Mentoring Excellence Award.

Sophie Warny, AASP Associate Professor of Palynology in the LSU Department of Geology & Geophysics, was appointed vice president of the Gulf Coast Section Society of Economic Paleontologists and Mineralogists Foundation (GCSSEPM).

Sheri Wischusen, College of Science director of undergraduate research, has been named Educator of the Year at her Alma Mater, the University of North Alabama. Wischusen will be honored this weekend during UNA's homecoming parade and at halftime as UNA takes on Western Oregon University.

MARQUEE PUBLICATIONS

Mark Batzer, LSU System Boyd Professor, biological sciences, and Mary Lou Applewhite Distinguished Professor, along with Research Assistant Professor Miriam Konkel and Research Associate Jerilyn Walker in Department of Biological Sciences in the College of Science, contributed to an article featured on the cover of the scientific journal *Nature*, titled "Gibbon Genome and the Fast Karyotype Evolution of Small Apes."

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Rob Brumfield, Roy Paul Daniels Professor in Biological Sciences and director of the LSU Museum of Natural Science, and an international team of researchers funded by the National Science Foundation, or NSF, published a paper in the journal *Nature* challenging the view that speciation - the process by which new species are formed - is directly linked to geological and climatic changes to the landscape.

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Michal Brylinski, assistant professor of biological sciences, published a paper titled "Matching drug

binding pockets in protein models using sequence order-independent structure alignments." His research made the cover of the September edition of *PLOS*.

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Gary Byerly, professor of geology & geophysics and dean of the LSU Graduate School, has contributed to research that has unearthed the earliest evidence of plate tectonics. The research collaboration led by Alexandra Krull-Davates, assistant professor of earth and environmental science at Temple-University, with contributions by Donald Lowe, Max Steineke Professor in Earth Sciences at Stanford University, published their research findings, "Paleoarchean ocean crust and mantle excavated by meteor impact: Insight into early crustal processes and tectonics," in the July issue of the journal, *Geology*.

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NEW GRANTS

BIOLOGICAL SCIENCES

Terry Bricker, "Photosystem II: Structure and Assembly, US Department of Energy", \$555,000, 2014-17.

Prosanta Chakrabarty, "Collaborative Research: Not So Fast - Historical Biogeography of Freshwater Fishes in Central America and the Greater Antilles", National Science Foundation, \$506,700, 2014-18.

Jeremy Brown, "Collaborative Research: Bayesian Model Checking for Phylogenetics in the Post-Genomic Era," National Science Foundation, \$418,252, 2014-17.

James Cronin, *US-Denmark-Czech Republic-China planning visit to develop an integrative approach to understanding range expansions and biological invasions under global change regimes*, National Science Foundation, \$9,954, 2014-15.

Huangen Ding, "Modification of Human mitoNEET [2Fe-2S] Cluster Under Nitric Oxide Stress," \$335,724, National Institutes of Health, 2014-17.

CHEMISTRY

Megan Macnaughtan, "Glycosylation and Calcium as a Code for Tandem EGF-like Repeat Structure and Dynamics," National Institutes of Health, \$375,000, 2014-17.

Graca Vicente (PI), Petia Bobadova-Parvanova Rockhurst University (Co-PI), "Synthesis, Properties and Dynamics of Near-IR BODIPY Fluorophores," National Science Foundation, \$390,000, 2014-17.

Graca Vicente (PI), Samithamby Jeyaseelan from the LSU School of Veterinary Medicine (Co-PI), and

Seetharama Satyanarayanajois from ULM (Co-PI), "CRC-specific Near-IR Agents for Tumor Imaging," National Institutes of Health, \$1,230,460, 2014-17.

MATHEMATICS

Stephen Shipman, "Resonance Phenomena in Wave Scattering," National Science Foundation, \$270,000, 2014-17.

Shawn Walker, "Numerical Analysis and Methods for Simulating Moving Interfaces and Controlling Shape," National Science Foundation, \$153,520, 2014-17.

STAR STUDENT



Ariel Jones Shares Her Experiences Studying in Argentina

As a double-major in Biochemistry and Spanish, **Ariel Jones** got the best of both worlds when she studied abroad in Argentina during spring and summer 2014. She took classes at Universidad Católica de Córdoba on Spanish subtopics, but in her spare time Jones was able to shadow doctors and other pre-medical students at local hospitals. While living with her host family, Jones was completely immersed in Argentinian culture and accomplished her goal of becomming fluent in Spanish.

> More

ALUMNI



Geology Graduates Research Published in **Geo-Marine Letters**

The thesis research of **Edward Lo**, 2013 LSU geology graduate, has been published in the journal Geo-Marine Letters. Lo worked alongside Sam Bentley, LSU Billy and Ann Harrison Chair in Sedimentary Geology, for the study titled, "Experimental study of cohesive sediment consolidation and

resuspension identifies approaches for coastal restoration: Lake Lery, Louisiana." Lo was is also a Fulbright Award recipient and plans to pursue future research interests in Brazil.

> More

DEVELOPMENT



Left to right: Edward and Cynthia Peterson and Dean's Circle members Mary and Ron Neal

Houston Alumni Hold Welcome Event for College of Science Dean

College of Science graduates and Dean's Circle members Mary and Ron Neal celebrated the arrival of the college's new dean with a welcome reception in her honor. More than 200 Houston alums and friends of the LSU College of Science attended the reception, which was held at the Neal's home, August 27.

"This was a great way to kick off my first semester at LSU and connect with LSU's strong contingency of Houston alumni," said Peterson. "I am especially grateful to Ron and Mary who warmly welcomed me back to my alma mater. They are examples of the accomplished and dedicated alumni who have committed their time and resources to growing the College of Science."

> View photos from the dean's welcome reception



Bella Bowman Foundation Donates \$75K to LSU Medical Physics Program

The Bella Bowman Foundation presented a \$75,000 grant to the LSU Medical Physics program, in partnership with the Mary Bird Perkins Cancer Center, to establish the Bella Bowman Foundation Radiation Necrosis Research Fund to examine the risks of radiation injuries to the brain as a result of proton radiation therapy.

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Two College of Science Graduates Recognized Among LSU 100

The College of Science is pleased to celebrate the accomplishments of our alumni honored among LSU 100: Fastest Growing Tiger Businesses. This year's College of Science honorees are:

- Dan Strecker, CEO of C-K Associates, LLC, an environmental consulting firm with locations in Baton Rouge. His technical area of expertise is water quality, and he continues to serve as the Director of C-K's Aquatic Toxicology Laboratory.
- **Dr. Rhonda Baldone** of Baldone Reina Dermatology, an expert in treacting and preventing diseases of the skin, hair and nails.

NEW DEAN'S CIRCLE MEMBERS

The College of Science would like to welcome the newest members of the Dean's Circle. Thank you for your contribution to the teaching and research activities in the college.

- Dr. Kate B. Freeman and Dr. Nathan Freeman, August 2014
- Dr. Charles B. Foy and Mrs. Anne B. Foy, September 2014
- Mr. Marshall J. Harper and Dr. Marie M. Harper, August 2014
- Mr. Brian Kurtz, September 2014
- > View full list of DC members





DC membership recognizes the generosity of alumni and friends who make annual gifts of \$1,000 or more to the Science Development Fund. For a gift of \$250, graduates between 2004-14 are also eligible for DC membership. Members enjoy invitations to the annual Dean's Circle dinner and other events throughout the year.

To join by mail, make your check payable to "LSU Foundation-Science Dean's Circle" and mail your check to: LSU Foundation, 3838 West Lakeshore Drive, Baton Rouge, LA 70808

To donate online, go to Isufoundation.org/givetoscience.



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