

AUGUST 2014 • Official newsletter of the LSU College of Science





FOLLOW Dean Cynthia Peterson @LSUSciDean

Message from Dean Cynthia B. Peterson

Greetings colleagues and friends,

Today marks my one-month anniversary as dean of the LSU College of Science. As an alumna of the college, it is such an honor to step into this role.

My transition to LSU has been a relatively smooth one and I am grateful for the warm welcome that I have received. I also want to thank Guillermo Ferreyra for his leadership as interim dean. He has been a great help to me in my initial steps in this new work.

As I begin as dean, I have made it a priority to get to know the college. Over the last 30 days, I have met some of the college's stellar students, faculty, staff and alumni. I have enjoyed hearing their perspectives on our work as researchers and educators and will continue these meetings through September in an effort to understand the spectrum of research and scholarship underway in the College of Science.

I look forward to a productive semester as we work together to advance the academic and research pursuits of the LSU College of Science.

Geaux Science!

Cynthia B. Lituren

Cynthia B. Peterson Professor and Dean LSU College of Science

NEWS/EVENTS



GeauxSCIENCEWelcome

College Hosts Inaugural GeauxScience Welcome Reception

Dean Cynthia Peterson, along with College of Science students, faculty, and staff, welcomed more than 200 students to LSU during its first ever GeauxSCIENCE welcome reception on Sunday, August 24 in the LSU Union Cotillion Ballroom. Students had an opportunity to learn about the different majors and research experiences available to science students and talk with upperclassmen about their experiences as science and premed majors at LSU.

"This is a great opportunity for students to network and connect with their peers and celebrate the start of a new semester," said Peterson. "It was wonderful meeting some or our new students and connecting them with the people and programs that will help them be successful throughout their academic career."

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Welcome Back! MOVE IN DAY 2014

Students moved in to LSU Residence Halls Wednesday, August 20 and shared their move-in day experiences on Instagram, Twitter and Facebook using #LSUMoveIn. President F. King Alexander and other campus administrators and staff were on hand to help students settle into their home away from home. More than 150 students moved into Evangeline Hall as part of the Science Residential College, which provides an on-campus living and learning experience tailor made for science majors.

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Louisiana Awarded \$3.25 Million for Science and Engineering Collaborative Consortia

Louisiana is one of six states to receive \$3.25 million from the National Science Foundation's (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR). A total of nearly \$18 million will be awarded to three regional partnerships that will collaborate on science and engineering research, education, and outreach to accelerate progress on scientific grant challenges, strengthen workforce capabilities, and broaden the participation of underrepresented groups in science, technology, engineering and mathematics.

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Gov. Jindal and LSU President F. King Alexander Announce Creation of Cyber Research Center

Gov. Bobby Jindal and LSU President and Chancellor F. King Alexander announced the creation of the LSU Transformational Technology and Cyber Research Center, which will pursue major federal and commercial research projects in applied technology fields. Initially, the TTCRC will be funded in part by the State of Louisiana and LSU in a challenge grant configuration that provides \$1 in state funding and \$0.50 in LSU funding for each \$10 in research funds the center attracts over the next three years.

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Life Beneath the Ice

Brent Christner and Colleagues Document the Existence of Microbial Life Below the Surface of the West Antarctic Ice Sheet in Nature Publication

In a finding that has implications for life in other extreme environments, both on Earth and planets elsewhere in the solar system, LSU Associate Professor of Biological Sciences Brent Christner and fellow researchers funded by the National Science Foundation, or NSF, this week published a paper confirming that the waters and sediments of a lake that lies 800 meters (2600 feet) beneath the surface of the West Antarctic ice sheet support "viable microbial ecosystems."

Co-author and NSF Graduate Research Fellow at LSU Amanda Achberger generated the key data for the paper. The Baton Rouge native and graduate of the LSU Laboratory School earned a bachelor's of science from LSU in 2010 and is currently pursuing a Ph.D. in biological sciences. More



LSU's Arlo Landolt Recognized for 55 Years of Observing at the National Laboratories

LSU Ball Family Professor Emeritus of Physics & Astronomy Arlo Landolt celebrated 55 years of observing at Kitt Peak National Observatory (KPNO), almost all of which were devoted to service to the astronomical community. His accomplishments are detailed in a feature on the National Optical Astronomy Observatory website. Landolt was instrumental in the development of LSU's astronomy group and is renown throughout the astronomical community for his discoveries. He was inducted into the LSU College of Science Hall of Distinction in March and has a number of sites named in his honor, including the LSU Landolt Astronomical Observatory and Mt. Landolt in the Antarctic.

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Harvard Bound

Boyd Professor Meredith Blackwell Spends a Year as a Harvard University Radcliffe Fellow

Renown mycologist and LSU System Boyd Professor of Biological Sciences Meredith Blackwell was one of 50 fellows from multiple disciplines to participate in the Radcliffe Fellowship Program at Harvard University. The program supports leading artists and scholars who have exceptional promise and demonstrated accomplishments.

Blackwell's Radcliffe colleagues hailed from Cambridge New England, Bulgaria, Iran, UK, Turkey and the US. She participated in two lectures each week given by other fellows who discussed their projects in the sciences, humanities, social sciences, and visual and literary arts. Blackwell's presentation was "Fungi in Our Environment: Revision of the Alexopoulos Introductory Mycology Textbook."

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Associate professors of physics & astronomy Guang Jia, Kenneth Mattnews, and Wei Hsung Wang were awarded an LSU Leverage Innovation for Technology Transfer grant (LIFT²), which will be used to develop a novel type of industrial air purifier using x-ray technology. The LIFT² program was created by the LSU Board of Supervisors to provide support to help transfer LSU technologies and innovations to the market.

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Suniti Karunatillake, associate professor of geology & geophysics, was awarded a research enhancement grant from the Louisiana Space Consortium for a proposal titled, "Remote Sensing, Ground Infrared and Neutron Spectroscopy to Support Planetary Analog Exploration." Karunatillake submitted the grant with postdoctoral researcher J.R. Skok. The grant will support research collaborations between Karunatillake and the LSU Planetary Laboratory and the NASA Ames Research Center's Solar System Exploration Research Virtual Institute.

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Morgan Kelly, associate professor of biological sciences, was featured in a ScienceNews cover story titled "How Species Will or Won't Manage in a Warming World." More

Kevin Smith, LSU Foundation James C. Nolton Distinguished Professor of Chemistry, was honored with a two-day symposium at the 8th International Conference on Porphyrins and Phthalocyanines (ICPP-8) that took place in Istanbul (Turkey), June 22-27, 2014, for his contributions to Porphyrin Chemistry over his 50 year career, including 749 publications, eight patents, 57 books edited or co-edited, and over 110 former graduate students and 50 post-doctoral students. His research has been continuously funded since 1977 with individual grants from the National Institutes of Health and the National Science Foundation. More

J. Cameron Thrash, assistant professor of biological sciences, is a recipient of the 2014 Ralph E. Powe Junior Faculty Enhancement Award. This award, given annually by Oak Ridge Associated Universities, recognizes exceptional work by university junior faculty.

Full list of 2014 Powe Award winners

Peter Wolenski, Russell B. Long Professor of Mathematics, was awarded a grant by the Louisiana Board of Regents to create the LSU Mathematics Consultation Clinic. The clinic, located in the Science Studio in Coates Hall and in the Lockett Hall computer lab, allows graduate and undergraduate students to provide technical assistance to academic researchers and industry

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MARQUEE PUBLICATIONS



Milen Yakimov, professor of mathematics and Sloan Research Fellow, and his collaborator Kenneth Goodearl at the University of California, Santa Barbara, published "Quantum cluster algebras and quantum nilpotent algebras" in the Proceedings of the National Academy of Sciences.



NEW FACULTY







WELCOME ABOARD!

The College of Science extends a warm welcome to Drs. Joyoni Dey, Brant Faircloth, and Stefan van Zwam. They are the latest addition to the college's faculty community. Read on to learn more about them.

Joyoni Dey, assistant professor of physics & astronomy, received a PhD in electrical and computer engineering from Carnegie Mellon University. Her research interests include medical imaging, image processing, and imaging system design and optimization. More

Brant Faircloth, assistant professor of biological sciences, received a BS degree in Forest Resources and a PhD from the University of Georgia. His research focuses on how evolutionary history shapes the genetic variation within species and populations and how differences in genetic variation translate into phenotypic differences at the population level.

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Stefan van Zwam, assistant professor of mathematics, earned a MSc and PhD from Eindoven University of Technology, The Netherlands. van Zwam is a combinatorialist. His research interests center on matroid theory, in particular structural and algorithmic aspects of matroids representative over finite fields.

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STAR SCHOLARS



Mission to Mars | Randy Paylor, a hydrogeologist and PhD candidate in LSU's Department of Geology & Geophysics, is hoping to be a part of one of the teams slated to travel to Mars in 2024. Mars One, a privately funded mission, plans to establish a permanent human settlement on the planet. Paylor was one of 200,000 candidates who first applied to be a part of the mission. Since January, that number has been narrowed to 705, including Paylor and three other Louisiana residents. Paylor talked with WBRZ Channel 2 about his Mars ambitions. Take a look. More



M. Vozzo

Deepwater Horizon Research | Maria Vozzo, a graduate student in the Department of Biological Sciences, is researching the impact of oil on Louisiana oysters as a Gulf of Mexico Research Initiative Scholar (GoMRI) with the Coastal Waters Consortium. Vozzo has completed her thesis detailing her long-term study of Barataria Bay oyster recruitment and predator exclusion study. She is now preparing to publish her results in scientific journals and is applying to PhD programs in Australia where she will soon be living.

Read more about Vozzo's research experience.

ALUMNI



LSU Laboratory School Honors College of Science Alum Dr. Brent Bankston

Dr. Brent Bankston was one of four distinguished LSU Laboratory School alumni honored during its 15th annual alumni recognition event, CUBS 2014. Dr. Bankston, University Lab School Class of '78, earned a bachelor of science in microbiology at LSU in 1982 and a doctor of medicine in 1986. He is currently an orthopedic surgeon with the Baton Rouge Orthopedic Group and serves as the team physician for University High School Athletics, as well as LSU Football, basketball, track, swimming, soccer, volleyball, and gymnastics. Dr. Bankston, along Bobby Phillips, Class of '57, were inducted into the Alumni Hall of Distinction. Other honorees included athletic greats Glen "Big Baby" Davis, Class of 2004, and John Hamilton, Class of '81, who were inducted into the Athletic Hall of Fame.



Keith Comeaux Delivers Keynote Address during LSU Summer Commencement

Keith Comeaux, LSU graduate in physics and mechanical engineering, served as the keynote speaker during the university's 284th commencement ceremony, Friday, August 8.

"I've had the good fortune to experience this rich tradition as a student on four different occasions," Comeaux said to the more than 650 graduates. "It's a true honor to share this experience with you today."

Comeaux gave himself two goals for his commencement address: do a favor to the students and be memorable, and share some lessons learned from going to Mars that the class of 2014 might find useful in their careers.

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DEVELOPMENT



Dean's Circle Spotlight: Robb Brumfield

Since 2007, the Dean's Circle (DC) has helped support the scholarly efforts of students and faculty across the disciplines in the College of Science. Our DC membership encompasses an outstanding group of alumni and friends who have made the college one of their philanthropic priorities. The DC includes a number of science faculty who in addition to their dedicated service to LSU and the College of Science, also support the college with their financial contributions. One such faculty member is Robb Brumfield, Roy Paul Daniels Professor of Biological Sciences and director of the LSU Museum of Natural Science. Brumfield and his wife, Tiffany, joined the Dean's Circle in 2013.

Robb Brumfield, Roy Paul Daniels Professor of Biological Sciences and director of the LSU Museum of Natural Science

Isubigday.org

museum.lsu.edu

"The College has outstanding faculty who are providing students with classroom and research experiences that are transformative in the student's life. Through the support of the college, those same faculty are conducting and publishing interesting research and raising extramural grants in support of it," Brumfield said.

Brumfield's investment and that of his colleagues have a significant impact on the teaching and learning taking place in the college.

"If it's affordable within the faculty member's budget, then joining the Dean's Circle is a great cause. Having more resources benefits everyone. Plus you get to go to some fun Dean's Circle dinners and interact with alumni who love science, love LSU, and want to help the College of Science prosper," Brumfield said.

The LSU Museum of Natural Science has a stellar reputation worldwide for its ornithological research in the tropics and is home to one of the nation's premier graduate programs for bird study. In October, Brumfield and a team of graduate students, will be travelling to Peru in an effort to break the World Big Day Birding record of 331 species sighted and raise awareness and funding for the natural history research at the museum.

For more information or to give to LSU Big Day Peru, visit Isubigday.org



Isufoundation.org/givetoscience

Young Alums Investing in the NEXT GENERATION

Engaging our young alumni, those with the closest connection to the student experience, to each other, and to LSU, is a new area of focus in the College. To do so, we have expanded the group for our most supportive alumni and friends, the Dean's Circle, by creating a unique opportunity to join exclusively for our most recent graduates. For an annual gift of \$250, the LSU College of Science is opening Dean's Circle membership to alumni who have graduated in the last ten years.

A gift of \$250 helps us to provide scholarships for incoming freshmen and travel funds and support to student and faculty researchers. DC gifts also support a variety of initiatives that are essential to providing a world-class educational experience, many of which are not funded by state resources.

To join the DC, make your donation online by visiting lsufoundation.org/givetoscience or you may mail a check payable to "LSU Foundation" and specify "College of Science Dean's Circle" in the memo section to:

> LSU Foundation 3838 West Lakeshore Drive Baton Rouge, LA 70808

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 of Science.

- Scott G. Comegys, July 2014
- Amberly Lindau Nunez, July 2014
- Terry N. Trobee, July 2014
- John M. Tyler, July 2014 •
- Richard P. Zingula, July 2014
 - Click here for a complete list of DC members

Support Research and Scholarship at LSU



The Dean's Circle (DC) is a loyal group of alumni and friends who share a passion for advancing scholarship and research at LSU. Our DC provides the working capital needed to fund pursuits of the College, including scholarships for first-time freshmen, student organizations and educational travel expenses, faculty recruitment and recognition activities, and development initiatives that build alumni and community relations.

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.



To submit news items for the upcoming College of Science E-News, e-mail djenkins1@lsu.edu



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