UScience

NOVEMBER 2012 Official newsletter of the LSU College of Science

NEWS/EVENTS





Four College of Science Professors Named AAAS Fellows

Four College of Science professors have been honored with the distinction of Fellow by the American Association for the Advancement of Science (AAAS), the world's largest scientific organization. The addition of this year's Fellows brings LSU's total number to 36.

LSU's newest AAAS Fellows are:

Susanne Brenner, Michael F. and Roberta Nesbit McDonald Professor of Mathematics: For advances in finite element, multigrid and domain decomposition methods, and for service to the computational and applied mathematics community.

Rongying Jin, professor of physics: For significant contributions to materials physics, including science-driven materials development and pioneering studies of their underlying physics.

Marcia Newcomer, George C. Kent Professor of Biological Sciences: For distinguished contributions to the field of structural biology, particularly for her recent elucidation of the

structure of human 5-lipoxygenase.

Kenneth Schafer, Ball Family Professor: For seminal contributions in the field of laser-matter interactions through extensive theoretical studies of high quality and great innovation.

New Fellows will be presented with an official certificate and a rosette pin on February16 at the AAAS Fellows Forum during the 2013 AAAS Annual Meeting in Boston, Mass. \bigcirc More



LSU Physics Professor Elected APS Fellow

Professor of Physics Jeffrey Blackmon has been named a Fellow of the American Physical Society, or APS, for his outstanding contributions to physics research and physics education.

APS represents more than 50,000 members, including physicists in academic, national laboratories and industry in the United States and throughout the world. The addition of Blackmon brings the total number of LSU APS fellows to 17.

According to the APS citation, Blackmon is recognized "for his vision and innovation in exploiting radioactive nuclear beams to advance our understanding of nuclear process that govern astrophysical phenomena." Blackmon's

name and citation will be published in the March 2013 issue of APS News and will appear on the Fellowship page of the APS web site (aps.org). He will also be presented with a fellowship certificate during the annual meeting of the APS Division of Nuclear Physics.



American Chemical Society Hosts 'ACS on Campus'

On November 15th and 16th, the American Chemical Society (ACS) invited students and faculty from area universities to LSU for ACS on Campus. LSU is one of over 30 campuses, domestically and internationally, where the Society's cross-divisional campus outreach program brings together resources from ACS Publications, Chemical Abstracts Service, Membership and Scientific Advancement and Education. Students participated in seminars on the basics of peer review, ethics in scholarly communications, career building and development, and how to effectively use ACS web tools like SciFinder, the ACS Network and the Web Editions Platform.

NEW FUNDING

PHYSICS & ASTRONOMY

Parampreet Singh, "Probing the Genesis of Space Time Using Supercomputers," John Templeton Foundation, 2012-2014, \$250,000.

Jiandi Zhang and E. Ward Plummer, "Study of Correlated Electron Materials Under Spatial Confinements," DOE, 2012-2015, \$1.14 million.

KUDOS

Associate Professor of Geology & Geophysics Huiming Bao has co-authored "Massive Volcanic SO, Oxidation and Sulphate Aerosol Deposition in Cenozoic North America." The paper has been selected as a winner of the U.S. Environmental Protection Agency's (EPA) 2011 Scientific and Technological Achievement Award competition.

Robin McCarley, professor of chemistry, was interviewed by Chemistry World magazine for a feature entitled, "Keeping Science in the Family." Chemistry World is the print and online magazine of the Royal Society of Chemistry, the largest organization in Europe for advancing the chemical sciences.

The 2011 T2K paper, produced by Physics Professors Thomas Kutter and Martin Tzanov and Professor Emeritus William Metcalf, has been selected for an award by the French Journal La Recherche. La Recherche is one of the top popular science journals in France. The physicists' research was also recognized as part of Physics World Top 10 Physics Breakthroughs of 2011.

Pampreet Singh, assistant professor of physics & astronomy, has been recognized as one of Baton Rouge Business Report's 2012 Forty Under 40. \bigcirc More

George Stanley, Cyril Tutta Vetter Alumni Professor of Chemistry, presented the ChemDemo program and the importance of "real" chemistry in high school chemistry education during "Chemistry in Action!," hosted by the Southwest Regional Meeting of the American Chemistry Society.

Bill Wischusen, associate professor of biological sciences, has been awarded the 2012 Torchbearer Award for Leadership in IT Advancement. Wischusen will be recognized during an award ceremony on Friday, November 30.

MARQUIS PUBLICATIONS

Mark Batzer, LSU System Boyd Professor and Mary Lou Applewhite Distinguished Professor of Biological Sciences and his team of faculty, staff and student researchers are collaborating with an international consortium of experts who are working together to tackle the 1,000 Genomes Project. A recent report on phase one of the project published in Nature demonstrates human genetic variations through the analysis of genomes of 1,092 individuals from 14 populations. \bigcirc Read complete article

S Mark Batzer's Laboratory of Comparative Genomics

ALUMNI



LSU Biology Grad Finalist for Prestigious Rhodes Scholarship

Recent biological sciences graduate Stewart Humble, a native of Egan, La., has been named a finalist for the prestigious Rhodes Scholarship.

The Rhodes Scholarships are the oldest and most celebrated international fellowship awards in the world. Rhodes Scholarships provide all expenses for two or three years of study at the University of Oxford in England, and may allow funding in some instances for four years.

Humble graduated from the College of Science with a perfect grade-point-average in May 2012 with a bachelor's degree in biological sciences and a minor in chemistry. A member of the LSU Honors College, he graduated with Upper Division Honors Distinction. \bigcirc *More*

STAR SCHOLARS



First place winner in graduate competition **Jillian Bambrick**



First place winner in the undergraduate competition Shane Cone

Geology Students **ROCK** the Competition

More than 20 participants competed in the Fourth Annual Rock Star Poster Competition on Friday, October 26. The Department of Geology and Geophysics, in conjunction with the LSU Geology club, hosted the event with catering provided by Marathon Oil. Marathon Oil also awarded scholarships to first, second, and third place winners in the undergraduate and graduate student categories.

Students submitted posters detailing research on a subject of their choosing which was then evaluated based on content and appearance. Competition judges included Lia O'Black from Schlumberger, Angela Thomas from Shell, Art Saller from Cobalt International, and faculty judge Professor of Geology and Bill and Ann Harrison Chair Sam Bentley. First place winner of the undergraduate competition was Shane Cone, followed by Lindsay Protho in second place and Ian Cannon in third. First place winner in the graduate competition was Jillian Bambrick Banks followed by Kate Griener in second, and Ashley Howell in third.







MAA Competition winners (I to r): Jesse Lu, Christine Derbins, Jordan Keller, Andrew Stewart, Jeremy Tillay, and Professor George Cochran.

LSU Math Students Place in MAA Student Team Competition

Two teams of mathematics majors competed in the Mathematical Association of America's (MAA) Student Team Competition held during the Association's Louisiana-Mississippi meeting. Twenty-one teams from a variety of schools in Louisiana and Mississippi attended the competition. LSU took home first place with a \$100 prize and third place with a \$50 prize. The first place team consisted of Christine Derbins, Jordan Keller, Jeremy Tillay and Paxton Turner. The third place team included Jacob Desmond, Andrew Elias, Jesse Lu and Andrew Stewart.



Geology Students Examine the Bayou Corne Sinkhole

Geology and Geophysics Associate Professor Juan Lorenzo recently led a research field trip to examine the Bayou Corne Sinkhole in Assumption Parish. State Department of Natural Resources scientists said they think a subterranean Texas Brine Co. salt cavern failed, allowing earth to partially fill the 2,250-foot-long vault and ultimately cause the sinkhole to form about 200 feet to the northwest of the cavern's top. The cavern was carved from the Napoleonville Dome after years of solution mining and





is near the salt dome's western edge. The dome is a 1-by-3-mile solid salt deposit that has been used for brine production, hydrocarbon storage and oil and gas exploration for many vears.

Lorenzo's team proposed mapping the sinkhole using seismic noise tests aimed at locating aquifer sands, which could be charged with free gas. The hole has grown to roughly 476 x 640 feet and the tests conducted during the field trip could help locate future wells for venting natural accumulations of gas.



The LSU chapter of Student Affiliates of the American Chemical Society (SAACS) has been granted an Honorable Mention Chapter Award for its 2011-2012 activities, advised by associate professors David Spivak and Robert Cook. The chapter will be recognized in *inChemistry* magazine and during the ACS Student Chapter Award Ceremony at the 245th ACS National Meeting in New Orleans.

ALUMNI & DEVELOPMENT HIGHLIGHTS



LSU Alumnus Clarence Cazalot Presents a View of Energy

President and CEO of Marathon Oil Clarence Cazalot discussed the future of energy during his presentation, "View of Energy: Today and Tomorrow." LSU faculty and students from various disciplines gathered in Patrick F. Taylor Hall on November 1 to listen as Cazalot talked about the recent spin-off of Marathon Petroleum Corp from Marathon Oil Corporation. He also provided an outlook of the energy industry.

"If someone has a problem, we all have that problem," said Cazalot. "We have to continue internally in the industry to practice higher standards and make sure the best practices are maintained because our neighbors expect a higher standard of our behavior and we indeed expect that of ourselves."

Cazalot is a New Orleans native with a bachelor's degree in geology from LSU. He was awarded an Honorary Doctorate of Humane Letters from Louisiana State University and is a member of the College of Science Hall of Distinction.



We are deeply saddened to report the death of Alumni Professor Emeritus Marion "Soc" Socolofsky.

A legendary figure in the former Department of Microbiology and in the current Department of Biological Sciences, Socolofsky is most well-known for his leadership in establishing electron microscopy as a facility at LSU, his role in the proposal that funded the construction of the Life Sciences Building, and his perpetual commitment as a mentor and instructor to both colleagues and students.

In his career, Socolofsky taught introductory biology to over 12,700 students, including 113 doctoral students and 150 master's students. Many of the working physicians in Louisiana today have been taught by Socolofsky. His students and peers are a testament to his character and dedication, describing him as a professor who enjoyed teaching and truly cared about his students, their welfare, and their education. He was admired and beloved by former students, faculty colleagues, and all who knew him.

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



