

# LSU RESEARCH

FOR LSU'S FACULTY & FRIENDS

FALL 2001

RESEARCH,  
GRADUATE  
STUDIES,  
ECONOMIC  
DEVELOPMENT

## LSU Welcomes New Vice Chancellor

LSU is proud to announce Kevin M. Smith as the new vice chancellor for research and dean of the Graduate School. Smith comes to LSU from California, previously serving as vice chancellor for research and professor of chemistry at the University of California, Davis.

Smith's appointment by LSU chancellor Mark Emmert became effective Aug. 20. With Smith's research in the area of biological chemistry, focusing on aspects of biology, physics and theoretical chemistry, he will hold an LSU Foundation professorship in the chemistry department along with his new appointment as vice chancellor.

A native of Birmingham, England, Smith earned his B.Sc., Ph.D. and D.Sc. degrees in chemistry from the University of Liverpool in the United Kingdom. Throughout his extensive career, he has served as a postdoctoral fellow at Harvard University, a lecturer at the University of Liverpool and has held visiting professorships in France, Germany, Italy and Portugal.

Upon joining the UC Davis staff as a chemistry professor in 1977, he progressed to chair of the chemistry department from 1990-1994. From 1996-1997 Smith served as associate vice chancellor before he was appointed vice chancellor in August 1997.

UC Davis experienced a dramatic increase in funding during Smith's tenure. Not only did the federal government increase the university's Indirect Cost formula by 4 percent over five years, but UC Davis also saw a 26 percent increase in external research funding under Smith's last year of leadership.

Smith assumes a position vacated by Lynn Jelinski, who left the University because of family medical problems. ❖

## Graduate School Enrollment Increases

There are 532 new faces on LSU's campus this semester. The Graduate School alone accounts for 109 of the new students—a 2 percent increase over last year. The Colleges of Business Administration, Education and Social Work rounded out the top three in new student growth.

The E.J. Ourso College of Business Administration added 44 new students, bringing its total to 561. Education jumped to 589 students with its addition of 23, and the School of Social Work added 19 students to raise its total to 217. Also noteworthy, social work had the highest percentage increase at 10 percent with its new students.

Vice chancellor for research and dean of the Graduate School Kevin Smith said that he is pleased to see the graduate student numbers increase. "This rise in the number of those pursuing advanced degrees studies is a positive trend that I would like to see continue over the coming years."

When asked about the possible cause for these increases, director of M.B.A. programs David Shields said, "Historically when there is a downturn in the economy, graduate school enrollment increases across the board." Although the College of Business attributes its increase to "aggressive recruiting and advertising," it also increased its enrollment to "provide opportunity for the need in the community." ❖



VC Kevin Smith

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## Scarebot Protects Fish

**W**hen you hear the term “scarebot”—what do you think of? Well, it isn’t something from a science-fiction movie, but a device found right here on LSU’s campus.

You may see the most recent “scarebot” floating along one of the Ben Hur aquaculture ponds. The device is a deterrent for birds hoping to feed off the pond’s thousands of catfish and crawfish.

The idea for this robotic scarecrow was born when biological engineering student Lance Black came to agriculture engineering professor Randy Price looking for a special problems project.

According to Price, pelicans and other birds were costing LSU researchers and other Louisiana fish farmers thousands of dollars each year in stolen fish and lost research. This caused Price and Black to take a serious look into solving the dilemma.

With the help of agriculture assistant professor Steven Hall, agricultural machinist Don Allen and visiting scholar Lin Wei, the team of five built a 2x3 foot boat complete with solar panels, paddle wheels, feelers and a vision system. Using its feelers to steer clear of the shore, this little boat will bounce around a 2-acre pond in about 30 minutes. When its vision system senses motion or the color white (for pelicans)—it shoots a squirt cannon of water up to 30 feet to ward off any intruders. “We wanted a deterrent that was environmentally friendly, not to harm the birds, simply push them back into nature,” Price said.

Costing less than \$1,000 to build, this little device is worth its efforts—possibly saving some of the larger fish farms \$20,000 each year on bird control. The low-maintenance device is designed to be left on the water for three months at a time. “The boat is completely solar-powered,” Price said. “Enough energy is generated from the solar panels to recharge batteries all day and provide all the movement and functions of the boat.”

This money-saving “scarebot” has caught the attention of *Newsweek*, *Discoverynews.com* and the journal *New Scientist*. “We knew this project was a good idea, but we didn’t expect it to have this effect,” Price said. “Because of this widespread publicity, a patent is in progress.”

In addition, Price said that many people have contacted him with an interest in the technology when it is finished, while others have contacted the department wanting to fund more extensive research. ❖

## Norris Changes “Face” of Phonics

**A**s a professor in the Department of Communication Sciences & Disorders with more than 20 years of experience working around children with language and learning problems, there isn’t much Janet Norris has not seen when it comes to learning disabilities. Still, experience is always ready for a challenge—as was Norris in 1997 when she noticed her 5-year-old grandson, Austin Norris, was having extreme difficulty learning the alphabet.

Austin, tested for gifted and talented art, could not seem to grasp the basics in reading and math. “Austin is a fabulous artist. It was confusing to me how he could be that visual, but have trouble with these visual symbols. This prompted me to read everything I could about visual learning.”

With plenty of research and even more devotion, Norris developed a series of flashcards called Phonic Faces, catering to developing visual strategies for learning. “Austin simply didn’t have the right pictures to teach him,” Norris said. Unlike the traditional “auditory” learning—“A” is for “apple,” Norris’ Phonic Faces show a baby crying with “ah” coming out of the mouth, representing the little “a” sound.

After more than a year of trying to learn the traditional “auditory” way, Austin made no progress. Then, through the use of visual phonics, “he picked up these facts in a matter of minutes,” Norris said.

Through visual phonics, words develop meaning with the use of pictures, Norris said. “Most visual objects are what they look like, but letters themselves are arbitrary.” The alphabet letters in Norris’ flashcards form the tongue, lip and mouth positions the children should make to produce the corresponding sound.

This program is currently in clinical trials, but more controlled research is the next phase. “Working with kids that have different learning disabilities keeps me adapting,” Norris said. “That has helped move my own research forward because it keeps me thinking.” ❖

## Chancellor’s

The Chancellor’s Distinguished Lectureship Series is made possible by the following lectures have been scheduled for the fall and spring semesters. ❖ r .

October 17, 2001 • **Richard Fayrer-Hosken**, Professor of Theriogenology at the University of Georgia. “Saving Africa’s Elephants.” 3:30 p.m., Vet School Auditorium. Primary Host: Dr. Dale Paccamonti, Department of Veterinary Clinical Sciences.

October 25, 2001 • **B.L. Turner II**, Higgins Professor of Environment and Society, Clark University. “Ancient Maya to El Mundo Maya: Integrated Land Science and the Southern Yucatán Peninsular Region Project.” 7:30 p.m., 130 Howe-Russell. Primary Host: Kent Mathewson, Department of Geography and Anthropology.

October 29, 2001 • **Johann Deisenhofer**, Professor and Investigator, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center. “Statins and Their Target: A Structural Basis for Big Business.” 4 p.m., 130 Howe-Russell. Primary Host: Benjamin Craft, CAMD.

## BRTC, LSU Promote Forum

Growing businesses locally has become a focus spearheaded by Governor Foster and carried out by various partners like LSU and the Baton Rouge Technology Council (BRTC). The next step in that

plan unfolds October 22-23, 2001, when the BRTC, along with several sponsors including LSU, offer the Louisiana Purchase Venture Capital Forum.



The two-day event will be held at the Ritz-Carlton in New Orleans. There, venture capitalists from all over the nation will gather to hear business plans from 16 entrepreneurs who hope to garner start-up funds and set up shop in Louisiana.

The mission of the Baton Rouge Technology Council is to promote the growth of economic development through success of technology-based initiatives in the Greater Baton Rouge area. The BRTC is committed to building the region as a leader in technology by fostering cooperation among business, government, education and the community. LSU is a founding member of the BRTC. ❖

## LSU CAPITaL Gets to Work

The LSU Center for Applied Information Technology and Learning (CAPITaL) has begun working on allocating the \$7 million received from Governor Foster's Information Technology Initiative this year.

Although nearly all of this year's money and most of next year's will go toward certain one-time expenditures, LSU CAPITaL's main priority is hiring a number of top faculty in IT areas of study. According to the center's director, Professor Joel Tohline, it should take "about three to five years to get them on board." At that point, LSU CAPITaL expects to be putting about 75 percent of its budget into new faculty hires. ❖

## From the Vice Chancellor

I recently completed my first month at LSU, and I'm so pleased to be here. What has struck me the most as I've "done the rounds" on the campus is the personal friendliness and enthusiasm for the well-being of LSU that I've encountered. Outside the campus I'm also amazed at the number of LSU bumper stickers that one sees on any trip through Baton Rouge.

I believe the campus is poised to move to the next level of expectation envisioned by our faculty, staff, students and stakeholders. We are a research-extensive university and also the flagship institution in the state of Louisiana. But while research is flourishing on this campus, we are not yet where we want to be, nor are we where our stakeholders and supporters expect us to be.

I came from a land-grant institution very similar to LSU. Though the overall goals of the University of California, Davis and LSU are similar, LSU has its own character and its special place and aspirations in research. I hope that you will all join me as we try to build upon our special character, our centers of excellence and our boundless potential in research, scholarship and creative endeavor. We will never be exactly where we want to be as we build our research capacity—we will always want to be better, even when we've become the best.

Once again, I'm delighted to be here. And, as the campus's chief research officer, I am honored to have the privilege to lead our researchers and scholars as we strive to increase our impact in the state of Louisiana and improve the competitiveness and national rankings of our research and scholarly programs. ❖

Kevin M. Smith  
Vice Chancellor

## s Distinguished Lectureship Series

by the generous gifts from private donors with the express purpose of enhancing LSU's research and scholarly image. The

For more details on upcoming speakers visit [www.research.lsu.edu/rghcd/ls.html](http://www.research.lsu.edu/rghcd/ls.html)

November 1, 2001 • **John Sallis**, Sparks Professor of Philosophy at Pennsylvania State University. "Death and Fire: The Strange Space of Klee's Painting." 4:30 p.m. Primary Hosts: Greg Schufreider, Department of Philosophy and Religious Studies and John Protevi, Department of French Studies.

November 8, 2001 • **Joel Moses**, Institute Professor at MIT. Member of the National Academy of Engineering and the American Academy of Arts and Sciences as well as the American Association for the Advancement of Sciences and IEEE. Primary Host: Peter Chen, Department of Computer Science.

November 9, 2001 • **C.N.R. Rao**, Einstein Research Professor and President JNCASR and Distinguished Visiting Professor at the University of California, Santa Barbara. "Nanotubes." 3:30 p.m., Life Sciences Annex, Room A101. Primary Hosts: Priya Vashista and S.S. Iyengar, Department of Computer Science.

November 15, 2001 • **Stuart A. Rice**, Hixson Distinguished Service Professor of Chemistry, University of Chicago. "Interfering For the Good of Chemical Reactions." 3:30 p.m., Life Sciences Annex, Room A101. Primary Host: Britt Thomas, Department of Chemistry.

November 28, 2001 • **Roy Curtiss III**, Freiberg Professor of Biology at Washington University. "Genetic Manipulation of Plants and Microbes: Impact on Global Nutrition and Health." 2 p.m., Life Sciences Annex, Room A101. Primary Host: Thomas Gillis, School of Veterinary Medicine.

# Faculty Awards

## **James Olney**

### ***Editor, The Southern Review; Voorhies Professor of English***

On April 26, 2001, James Olney was announced as one of the newest Fellows of the American Academy of Arts & Sciences. He was recognized for his work in the field of literary criticism. Olney's publications and major field of research focus on autobiography as a literary mode. He also serves as editor for the *Southern Review* where, according to the Academy, he works "in a manner intended to maintain the standards and tradition established by the journal's founders, Cleanth Brooks and Robert Penn Warren."

## **Alexandre Leupin**

### ***Professor, Department of French***

Alexandre Leupin received the 2000-2001 Distinguished Research Master Award in Arts, Humanities and Social Sciences. The author of seven books and approximately 60 articles, Leupin received his license ès lettres in 1971 with the highest grades of the session; his diplôme ès lettres in 1973 and his doctorat ès lettres, summa cum laude, in 1981, all from the University of Geneva in Switzerland.

## **Joel Tohline**

### ***Professor, Department of Physics & Astronomy***

Joel Tohline received the 2000-2001 Distinguished Research Master Award in Engineering, Science and Technology. Tohline graduated magna cum laude in 1974 from Centenary College in Shreveport with a degree in physics. He received his doctorate from the University of California, Santa Cruz, in 1978. He has published 64 articles and presented 47 conference papers.

## **Kent Mathewson**

### ***Associate Professor, Department of Geography & Anthropology***

Kent Mathewson was elected to the national council of the Association of American Geographers (AAG) and was reappointed to serve as the AAG's representative to Section H (anthropology) of the American Association for the Advancement of Science. Mathewson's research interests include cultural geography, historical geography, cultural ecology geography, history of geography, Latin America and the American South.

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