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The **College of Science e-Newsletter** is distributed to all faculty and staff in the College and to campus administrators, alumni, and friends of the college.

If you know someone who should be receiving or would like to receive the **e-Newsletter** and is not, please send their contact information and e-mail address using the link below.

Articles and ideas should be sent to [science@lsu.edu](mailto:science@lsu.edu). Please include hyperlinks when possible.

*Thanks to all who provide the items for this newsletter.*

**NOTES FROM 336 HATCHER**

Dear Friends and Colleagues,

I hope that you are all off to a good start with the semester.

Uncertainty is still the word of the day regarding our budget but, all things being relative, recent news and developments have been encouraging. Early last fall, all deans were told to prepare for a mid-year of a magnitude equivalent to that of last year's mid-year cut (~\$900k for the College of Science). Fortunately, we have been informed we will NOT have a mid-year cut, which allows us to proceed with the limited number of faculty hires that we are now pursuing (at least one search in each department). The next budgetary challenge that we face is the 2011-12 budget. It appears certain that there will be a cut, but the magnitude is much less than was previously discussed. If the legislature approves some of the reforms recommended by the Flagship Coalition, and partially endorsed by Gov. Jindal, we will be in a substantially better position going forward. The next few months will be very important to us.

We have all been kept quite busy over the past few months with various directives from Academic Affairs. In response to a legislative mandate to reduce undergraduate degree requirements to 120 credit hours, all departments and the college have gone through an extensive process of reviewing their degree programs. This is always an emotional topic, but I was pleased with the engagement by both faculty and staff. As a result of those deliberations, it appears that all of our degree programs will be reduced to 120 hours beginning in the fall of 2012 (all programs except Mathematics currently have degree requirements > 120 hours).

We have also been actively engaged with developing strategic plans at both the departmental and college level. Draft

plans have been submitted to Academic Affairs and we are waiting for their comments. Thanks to those who attended the forum on Jan. 24 to review and discuss the college plan. It is much better for the input and the revised draft has been posted soon for additional comment. Plans will be submitted to AA on March 4, and college and departmental plans will be posted online by April 1.

Academic Affairs is reviewing teaching workloads throughout the university and Gary Byerly and I have had preliminary discussion with Provost Hamilton. There are several ways to express teaching workloads, but College of Science collectively faculty rank either 1st or 2nd among all LSU colleges in terms of student credit hours per full time equivalent. To be sure, our very talented instructors carry a significant portion of the total credit hours that we teach. We are now in the process of providing information to Provost Hamilton regarding national standards for science faculty teaching at major research universities, as well as a detailed description of how we make teaching assignments.

I will close by noting that College of Science faculty are once again doing an excellent job of attracting external funding for their programs. Through December of 2010 the SCI faculty had brought in \$22.5M in funding. This puts us ahead of last year's record of \$40.4M. Congratulations to all!

Regards, Kevin C.

## KUDOS

**Andrew Barker** (a VIGRE postdoctoral associate in Math/CCT) was awarded the 2010 George Pólya Award for mathematical exposition from the Mathematical Association of America.

**Mark Batzer** (Biological Sciences) received the 2010 ING Professor of Excellence Award on the field during the LSU v. Ole Miss football game in November.

**Suzanne Brenner** (Mathematics) was selected to serve on the Laboratories of Excellence Jury (Labex), an initiative by the government of France designed to endow world-renown laboratories from all academic disciplines with significant means to construct a high-level integrated policy concerning research, education and result exploitation.

**Mike Cherry, Gary Case, and James Rodi** (Physics & Astronomy), working with an international team of collaborators, have detected and confirmed a decrease of several percent in the hard X-ray and gamma ray intensity from the Crab Nebula, previously thought to be a constant “standard candle.”

**Gabriela Gonzalez** (Physics & Astronomy) was appointed chair of the search committee for the new LIGO director.

**Robert Lipton** (Mathematics) was re-elected to serve on the Board of Directors for the Society of Engineering Science (2011-2013), elected as Vice Chairman of the SIAM Activity Group on Materials Science, and appointed Associate Editor for the SIAM Journal Multiscale Modeling and Simulation.

**Jim Matthews** (Physics & Astronomy) has been elected co-spokesman for the Pierre Auger Observatory. The Auger

Observatory, located in Argentina and operated in collaboration with more than 250 scientists from 17 countries, is the world’s largest ultra-high energy cosmic ray experiment.

**Jorge Pullin** (Physics & Astronomy) has been elected to the executive board of the executive council of the American Physical Society, has been appointed editor for the space-time and gravity section of Scholarpedia, and was appointed founding editor of Physical Review X, a new, open access, and all-electronic journal published by the American Physical Society.

**Steve Soper** (Chemistry) will receive the 2011 American Chemical Society’s Division of Analytical Chemistry Award in Chemical Instrumentation at their fall meeting in Denver.

**Joel Tohline** (Physics & Astronomy) has been named the new Director of the LSU Center for Computation and Technology (CCT).

## AAAS Fellows

Congratulations to the six newly elected fellows of the American Association for the Advancement of Science:

**Kevin Carman**, dean of the College of Science/professor of biological sciences

**Robin McCarley**, Barbara Womack Alumni Professor of Chemistry

**Sandra McGuire**, professor of chemistry and assistant vice chancellor for learning and teaching in LSU’s Division of Student Life and Enrollment Services

**Erwin Poliakoff**, Roy Paul Daniels Professor of Chemistry

**Frederick Rainey**, Gregory Cannaday Burns Professor of Biological Sciences

**Edward Seidel**, professor of physics; NSF director of math/physical sciences

## NEW GRANT FUNDING NOTICES

### INTERDISCIPLINARY

**Nathan Brener** (CSC), Sumanta Acharya (Mechanical Engineering), Werner Benger (CCT), **Sundaraj Iyengar** and **Supratik Mukhopadhyay** (CSC), Haosheng Huang and William Stone (Coastal Sciences), “Modeling, Data and Visualization of Deepwater Horizon Oil Spill,” BP Exploration & Production, 9/23/10-9/22/10, \$250,002.

**Bijaya Karki** (CSC), Sumanta Acharya (Mechanical Engineering), and Werner Benger (CCT), “Visualization of Oil Spill Related Data, BOR, 8/15/10-11/30/10, \$10,000.

**Gabrielle Allen** (CSC), Werner Benger, Peter Diener, Jian Tao, Jim Chen, and Carola Kaiser (CCT), “Modeling and Visualizing the Effect of Severe Storms on Oil Spill Trajectories with the Cactus Framework and LONI,” BOR, 8/15/10-11/30/10, \$10,000.

### BIOLOGICAL SCIENCES

**Fernando Galvez** and **Benjamin Dubansky**, “Environmental assessment of the BP Deepwater Horizon oil spill in coastal gulf killifish populations in Barataria Bay, Louisiana,” Cossich, Sumich, Parsiola & Taylor, LLC, 11/15/2010-3/15/2011, \$18,873.

**Gary King** (Co-PI), Christopher D’Elia and Richard Shaw (Coastal Sciences), Matthew Lee (Sociology), Kelly Rusch (Engineering), “BP Oil Spill Research Management,” BP Exploration & Production, 7/1/10-6/30/11, \$85,000.

## MARQUEE PUBLICATIONS

**Mark Batzer** (Boyd Professor, Biological Sciences), **Jerilyn Walker** (Biological Sciences) et al., “1000 Genomes Project (In Press) Mapping copy number variation by population scale genome sequencing,” *Nature* 470: 59-65 (2011).

**Barry Dellinger** (Taylor Chair, Chemistry) “Potential for Misidentification of Environmentally Persistent Free Radicals

as Molecular Pollutants in Particulate Matter,” *Environmental Science & Technology*, [2010] selected for an Editor’s Choice Award as one of *ES&T’s Best Papers of 2010*, 2nd Runner-up in the category of Science.

**Marcia Newcomer, Nathaniel Gilbert, Sue Bartlett**, et al., “The structure of human 5-lipoxygenase,” *Science* 331, 217-219 (2011). They presented their

new method to “stabilize” 5-LOX and generate usable crystals for structural elucidation at the Keystone Symposium on Bioactive Lipids in Kyoto Japan.

W.A. Anderson et al. including **Isiah Warner** (West Chair, Chemistry) “Changing the Culture of Science Education at Research Universities,” *Science* 331, 114-115 (2011).

**Gary King**, “Microbial community responses to Deepwater Horizon oil spill: pre-spill background assessment,” BP Exploration & Production, 6/30/10-6/30/11, \$179,937.

**Andrew Whitehead and Fernando**

**Galvez**, “Deepwater Horizon oil exposure effects on marsh fishes in at-risk habitats: Integrated laboratory and field studies,” BP Exploration & Production, 8/27/10-8/26/11, \$149,967.

**Andrew Whitehead**, “RAPID:

Collaborative Research: Genetic Impact of the Deepwater Horizon Oil Release,” NSF, 8/15/10-7/31/11, \$29,932.

**James Cronin and Prasad Bhattarai**,

“Role of storm activities in the spread of an invasive plant, *Phragmites australis*, in the coastal marshes of Louisiana,” LA Dept of Wildlife & Fisheries, 6/04/10-6/03/11, \$1,000.

**CHEMISTRY**

**Kermit Murray**, “Monitoring Polycyclic Aromatic Hydrocarbon Exposure in Seafood with Imaging Mass Spectrometry,” BP Exploration & Production, 8/27/10-8/26/11, \$148,268.

**Robert Cook**, “Collaborative Research: RAPID: The Effects of Oil Contamination from the Deep Horizon Disaster on the Composition of Dissolved Organic Matter in Louisiana Coastal Marshes,” NSF, 8/01/10-7/31/11, \$37,462.

**Steven Soper**, “Roche Proof of Concept Project,” Roche Diagnostics, 8/04/10-12/03/10, \$149,020.

**COMPUTER SCIENCE**

**Supratik Mukhopadhyay and Sundaraj Iyengar**, “Algorithms for Indexing Videos,” Schafer Corporation, 7/01/10-4/29/11, \$10,000.

**GEOLOGY & GEOPHYSICS**

**Sophie Bart**, “CAREER: Deciphering Antarctic Climate Variability during the Temperate/Polar Transition and Improving Climate Change Literacy in Louisiana through a Companion Outreach Program,” National Science Foundation, 3/01/11-

**Sophie Bart, Laurie Anderson, Annette Engel**, and Eugene Turner (PI, Coastal Sciences), “Analysis of Samples Collected to Measure Effects of Stressors on Coastal Wetlands,” BP Exploration & Production, 827/10-8/26/11, \$150,000.

**MATHEMATICS**

**Susanne Brenner**, “IMA contract for Math graduate students,” University of Minnesota, 9/01/2010-6/10/2011, \$21,000.

**Michael Malisoff**, “Collaborative Research: RAPID: Autonomous Control and Sensing Algorithms for Surveying the Impacts of Oil Spills on Coastal Environments,” NSF, 9/15/10-8/31/11, \$49,558.

**Guillermo Ferreyra**, “STEM Director at Louisiana Department of Education,” LA Dept of Education, 7/01/10-6/30/11, \$213,675.

**Li-yeng Sung**, “Simulating our Complex World: Modeling, Computation and Analysis,” University of Minnesota, 9/01/2010-6/10/2011, \$39,112.

**PHYSICS & ASTRONOMY**

**Jeffery Blackmon and Edward Zganjar**, “The Structure of Nuclei Far From Stability,” DOE, 9/01/2010-8/31/2011, \$105,840.

**Jeffrey Clayton and Jennifer Andrews**, “Dust Formation and Light Echoes in Nearby CCSNe,” California Institute of Technology - Jet Propulsion Lab, 08/30/2010-09/30/2011, \$5,000.

**Jeffrey Clayton and Jennifer Andrews**, “The Formation and Evolution of Dust in Core-Collapse Supernovae,” NASA, 8/20/10-8/19/11, \$5,000.

**Kenneth Hogstrom and Kenneth Matthews**, “Web-based Instructional Module on the Topic of Ethics in Graduate and Resident Education,” American Board of Radiology Foundation, 7/01/10-6/30/11, \$4,000.

**Richard Kurtz**, Kyungmin Ham, Orhan Kizilkaya, and Amitava Roy (CAMD), “Elementally Resolved Chemistry of the Evolution of the Gulf Spill Oil,”

BP Exploration & Production, 8/27/10-8/26/11, \$149,999.

**Thomas Kutter**, “Proposal for LBNE Water Cherenkov Detector Calibration Development (MOU),” Brookhaven Science Associates, 12/17/2010-9/30/2011, \$69,800.

**Bradley Schaefer and Andrew Charles Collazzi**, “Gamma-Ray Burst Luminosity Indicators with Swift and Fermi,” NASA, 8/20/2010-8/19/2011, \$5,000.

Be sure to send us your grants for listing here. Information should include PI(s), project title, funding agency, term years, and amount of award.

**PROGRAM NEWS**

CCT co-hosted “Scientific Computing Around Louisiana” (SCALA) January 28-29, at Tulane University.

Scope-On-A-Rope Coordinator **Adrienne Lopez**, along with Director of Undergraduate Outreach **Dr. Sheri Wischusen** and Director of Advancement **John Grubb**, will represent the College of Science during **TechPawLooza**, LSU’s annual technology fair on March 3<sup>rd</sup> in the LSU Union from 12-2pm. Stop by their booth and see the latest in wireless video microscopes.

**STUDENT IN THE NEWS**

**Charles Wilson**, graduate student in the Medical and Health Physics program, is one of eight students from across the country appointed to the Health Physics Society (HPS) Committee for Student Support.

**HALL OF DISTCTION 2011 CLASS CHOSEN**

The College of Science will induct six new members into the Hall of Distinction as the 2011 Class at the annual ceremony May 6:

- Dr. Ronald Alvarez
- Dr., Dr. Richard D. Anderson
- Mr. Carlo Christina
- Dr. Albert Meier
- Dr. James Robinson
- Major General Jasper Welch

## DEVELOPMENT/FUNDRAISING HIGHLIGHTS

More than \$360,000 has been donated and pledged to the College since the last eNewsletter in December. Listed below are a few significant new contributions. Two donations will garner an additional \$80,000 from the Board of Regents once matching gifts are received. All of the gifts made prior to January 1, 2011 are credited to the Forever LSU campaign.

### *Unrestricted gifts*

**Dr. Mary Lou Applewhite:** \$5,000 to the College of Science Development Fund

**Stephen T. and Katherine Brown:** \$25,000 pledge to Physics Development Fund and Science Development Fund

**Mr. & Mrs. Stuart L. Oden:** \$8,000 to the Geology Development Fund

**Mr. Armour C. Winslow:** \$7,500 College of Science and Geology Development Funds

### *Memorial Funds and Scholarships*

**Dr. George Belchic, Jr.:** \$6,000 to the Harriet Cameron Belchic Memorial Scholarship Fund

**Dr. & Mrs. Terry Latiolais:** \$4,000 to the Brandon J. Latiolais Memorial Fund

**Mr. & Mrs. Tom Taylor:** \$5,000 to the Ted Parker Memorial Fund

### *Professorships*

**Byrd and Alice Ball:** \$60,000 to complete the second Ball Family Distinguished Professorship in Physics & Astronomy

**Dr. & Mrs. Bill Pryor:** \$100,000 to the W. A. Pryor Professorship in Chemistry

**Dr. Arthur H. Saller:** \$3,500 to the Mary Jo Klosterman Professorship Fund

### *Directed Program Gifts*

**Dr. Mark Batzer & Dr. Pamela Richard:** \$10,000 to College of Science Development Fund, the Biological Science Development Fund, the Michael McDaniel Memorial, and the Biological Sciences General Scholarship Fund

**Mrs. Josephine W. Nixon:** \$2,000 to the Birds of Louisiana Book Fund and the Tropical Bird Research Fund (LSUMNS)

**Mr. James H. Painter:** \$10,000 to Geology Intensive Orientation for Students

**Dr. Judith A. Schiebout:** \$3,500 to the Vertebrate Paleontology Research Fund

### *Organizational Gifts*

**Delta Chapter of American Petroleum Institute:** \$7,500 to the Geology General Scholarship Fund.

**ExxonMobil:** \$11,000 to the Geology Development Fund and the Computer Science Development Fund

**HTK Consultants:** \$10,000 to Geology Field Camp Maintenance Fund

**Hubert Charitable Foundation:** \$8500 Vertebrate Paleontology Research Fund

**New Orleans Geological Society (NOGS):** \$14,000 to the Geology General Scholarship Fund.

## New Dean Circle Members

The Dean's Circle consists of friends and donors who contribute a minimum of \$1,000 in unrestricted funds annually to the Science Development Fund. We are pleased to welcome our newest members!

**Mr. Darrin Gipson**

**Dr. Neil Kestner & Dr. Arlene Kestner**

**Dr. Mary E. McKinley**

**Dr. Maud Walsh & Dr. Gary Byerly**

**Dr. Winnie K. Wong-Ng**

## CALENDAR OF EVENTS

March 8	Mardi Gras Holiday (University offices closed)
April 1	Spring Invitational (Departments should not schedule seminars or other events on this afternoon; a large number of faculty are needed to advise approximately 400 students)
April 13	Choppin Honors Convocation 4:30 PM Atchafalaya Room
April 15	P&T Packets due in Dean's Office (original only to Sara)
April 18 - 24	Spring Break
April 25	P&T Chairs Advisory Committee 9:00 AM 346 Hatcher
April 25	P&T Faculty Advisory Committee 1:00 PM 346 Hatcher
May 2	Faculty Evaluations due in Dean's Office
May 4 - 8	Concentrated Study Period
May 6	Dean's Circle Executive Committee 1:30 pm TBA
May 6	Hall of Distinction Banquet 6:00 PM Lod Cook
May 7	Classes End
May 9 - 14	Final Exam Period
May 20	LSU Commencement Ceremony 9:00 AM PMAC
May 20	SCI Diploma Ceremony 4:00 PM PMAC

Have news to share? Received a new grant? E-mail to [science@lsu.edu](mailto:science@lsu.edu).

## NOTES FROM AROUND CAMPUS

### Laboratory Safety

The LSU Environmental Health and Safety (EHS) section has initiated a new safety accreditation program for labs on campus. Robert (Bob) Ardoin, EHS Coordinator, is coordinating this effort and currently making visits to the labs. The process is designed to assure PIs and their research staff that the lab practices, equipment and facilities are in compliance with LSU and various regulatory agency safety and environmental requirements.

Please note that ALL research involving biological agents and toxins must be registered with and approved by the Institutional Biological and Recombinant DNA Safety Committee (IBRDSC) as specified in the University Safety Policy, [PS-19](#). If your lab is currently performing research with biological agents or biological toxins, and your research is not registered, please go to the website Registration of Biohazard / Recombinant DNA Research to register the research project. The IBRDSC meets monthly and will process the registration document as soon as practicable.

If you have questions about the process, contact the EHS office at 578-5640 and talk with Dr. Greg Hayes or Dr. Quinesha Morgan.

### Campus Safety

The LSU Police Department launched a new website last month aimed at improving the public's access to their services ([www.lsu.edu/police](http://www.lsu.edu/police)). The new site includes a new training video "Shots Fired, When Lightning Strikes." The active shooter response training program is free to all faculty, staff, and students using their PAWS ID. Co-sponsored by the LSU Emergency Operations, the video is available through a direct link [www.lsu.edu/shotsfired](http://www.lsu.edu/shotsfired) and gives the entire campus a new tool on how to recognize and survive the unthinkable.

### LSU Mobile

LSU now has an iPhone app that provides news, video, campus maps, athletics updates, and more. This app is a free download from the App Store or at [lsumobileapps.lsu.edu](http://lsumobileapps.lsu.edu). The technology

coordinators who created this app are adding features, and the app should be available to mobile users on other platforms soon.

Please send suggestions for content you would like to see through the LSU app to [lsumobile@lsu.edu](mailto:lsumobile@lsu.edu).

### Helpful Links

#### Mailing A Package or group of letters?

Easy Ship  
[www.easyship.lsu.edu/DEMS/](http://www.easyship.lsu.edu/DEMS/)

#### Mail Processing Forms

Single or bulk-mail  
[pas.lsu.edu/mailling-services/forms](http://pas.lsu.edu/mailling-services/forms)

#### Have a printing job to do?

Printing Tips  
[pas.lsu.edu/?q=/printing-services](http://pas.lsu.edu/?q=/printing-services)