



APRIL-MAY EDITION 2008

# COLLEGE OF BASIC SCIENCES

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## E-NEWSLETTER

The *College of Basic Sciences e-Newsletter* is published in February, April, June, August, October, and December. Articles and ideas for the e-Newsletter should be sent to [bascdean@lsu.edu](mailto:bascdean@lsu.edu). Please include hyperlinks when possible.

### NEWSLINKS

The URLs listed below are direct links to the various news pages or newsletters within the College and departments. News highlights also appear on the college's [Home Page](#) and visit our departmental pages:

[Biological Sciences](#)  
[Chemistry](#)  
[Computer Science](#)  
[Geology & Geophysics](#)  
[Physics & Astronomy](#)  
[Museum of Natural Sciences](#)

### CALENDAR OF EVENTS

June 30	Fiscal Year End
July 4	Independence Day Holiday (campus closed)
August 8	Summer Commencement 9:00 AM PMAC
August 15	Professional/ Admin Evaluations due to HRM

### NOTES FROM 338

Dear Friends & Colleagues,

The College has reached a verbal agreement with Residential Life to establish a **Science Residential College (SRC)**. Evangeline Hall, which accommodates 230 students, will be the location of SRC. There is much work to be done in the coming year to sort out all of the particulars, but I am very pleased that we will be able to offer a unique living/learning experience for our undergrads. There will be many opportunities for faculty participation in this initiative from all departments, and you'll be hearing more about them in the weeks and months to come. In the mean time, if you would like to get involved with the SRC, please contact [Associate Dean Gary Byerly](#).

I'd like to offer a special note of appreciation to **Bryan Carstens** and **Michael Hellberg** (both of Biological Sciences) who recently spent a day at the Louisiana capitol to offer their testimony against SB 733.

I was recently appointed to the Board of Directors for Mary Bird Perkins Cancer Center, and I look forward to furthering our excellent relationship with them in Medical Physics and other areas. And under the category of 'who really cares'...I was also recently appointed to the Board of Trustees at my undergraduate alma mater, McPherson College (a bustling 500-student, liberal-arts college in central Kansas).

Although no deals have been finalized, we are in advanced stages of negotiations with several outstanding faculty candidates associated with the Materials Science and/or Computational Science Multidisciplinary Hiring Initiatives. I'm hopeful that we'll be able to announce completed deals with some of these impressive folks by the end of the summer.

Finally, as most of you are probably aware, three suspects in the murders of **Chandrasekhar Reddy Komma** and **Kiran Allam** were arrested and charged late last week. Very few details were provided by police, but the judicial process will now take its course. The families, colleagues, and friends of Komma and Kiran will hopefully take some comfort in knowing that progress has been made in identifying the individuals who committed this horrific crime. We are grateful to the many law-enforcement agents that have worked diligently over the past several months on this case.

Regards, Kevin C.

## KUDOS

### **Congratulations to BASC faculty members honored at the Faculty Awards Reception May 6<sup>th</sup>.**

**Eric Achberger** (Biological Sciences) and **Dana Browne** (Physics & Astronomy) received the Tiger Athletic Foundation President's Award.

**Graça Vicente** and **Elzbieta Cook** (Chemistry) were awarded the Tiger Athletic Foundation Undergraduate Teaching Awards.

**Vince LiCata** (Biological Sciences) received the Brij Mohan Distinguished Professor Award. The award recognizes a faculty member who serves as a model for the community in demonstration of a commitment to peace, equality, and social justice.

**Julia Chan** (Chemistry) received the 2008 Distinguished Faculty Award. Julia also received the Agnes Fay Morgan Research Award sponsored by Iota Sigma Pi.

**Bijaya Karki** (Computer Science) received the 2008 Phi Kappa Phi Non-Tenured Faculty Award in the Natural and Physical Sciences.

**Christopher Gregg** (Biological Sciences) received the George H. Deer Distinguished Teacher Award. Chris and **Gerald Baumgartner** (Computer Science) were also recognized for their TAF Undergraduate Teaching Awards presented earlier this year at the Choppin Honors Convocation.

**Huiming Bao** (Geology & Geophysics) was cited in *Science* (March 2008: Vol. 319. no. 5868, p. 1336) in the Technical Comments section: "[Early Archaean Microorganisms Preferred Elemental Sulfur, Not Sulfate.](#)"

**Elzbieta Cook** (Chemistry) received an [Appreciation Award](#) for organizing symposia for "Science Week" at the Pittcon 2008 in New Orleans.

**Kermit Murray, Lancia Darville** (Chemistry) and Mark Merchant (McNeese) have uncovered a link that may prove [alligators useful to fighting infections](#) due to characteristics in their blood that may build new drugs for antibiotic resistant infections.

The International Symposium on Advances in Computer and Sensor Networks and Systems was held in Zhengzhou, China in April. The symposium

was organized to recognize the contributions of **Sitherama Iyengar**, Roy P. Daniels Professor and chair of Computer Science, to the field of computer science on the occasion of his 60<sup>th</sup> birthday.

**Sitherama Iyengar** (R. P. Daniels Professor and chair of Computer Science) served on a committee that reviewed the Department of Computer Science at Syracuse University.

Boyd Professor **Robert O'Connell** and R. P. Daniels Professor **Ravi Rau** (Physics & Astronomy) were named to the [Outstanding Referees Program](#) by the American Physical Society Journals division.

**Marlan Scully**, adjunct professor (Physics & Astronomy) and member of the [Hearne Institute of Theoretical Physics](#), has been elected to the American Academy of Arts and Sciences.

**Steve Soper**, William L. & Patricia Senn Professor (Chemistry) was named [2008 LSU Distinguished Research Master](#).

Artwork created through collaboration between LSU artists and physicists was featured at an exhibition "Modern Physics and the Mystery of Reality" during the 2008 American Physical Society Meeting held in New Orleans in March. The meeting brings together some 4,000 physicists from around the world. Sixteen original paintings were featured highlighting the collaboration between five physicists from the **Department of Physics & Astronomy** and 16 painters from six Louisiana universities.

The College provided certificates and cash awards of \$300, \$200, and \$100 for first, second, and third place in the Senior Division Sweepstakes of the **2008 Louisiana Science and Engineering Fair**. Winners were:

1. Insun Chong, Caddo Parish Magnet School (Caddo Parish), "The Role of Retinoid Receptors in Suppressing Mitogen Activated Protein Kinase Signaling in Skin Cancer"
2. Andrew Meng, LSU Laboratory School (Baton Rouge), "Multi-Analyte Imprinting in One Monomer Molecularly Imprinted Polymers"

3. Bonnie McLindon, St. Joseph's Academy (Baton Rouge), "Gulf Hypoxic Zones: Causes and Cures".

Bonnie is the granddaughter of **Louis Thibodeaux** (GEOL). At the national Fair in Atlanta, Bonnie was named Category 1<sup>st</sup> place (\$5000 award), Overall 1<sup>st</sup>

Place (\$3000 award), and Association for Women Geoscientists Award (\$1500). Way to to Bonnie!

Thanks to the BASC faculty and graduate students who served as judges for the 2008 Louisiana Science and Engineering Fair.

Biological Sciences	Chemistry	Computer Science	Geology & Geophysics	Physics & Astronomy
<i>Faculty</i>	<i>Faculty</i>	<i>Faculty</i>	<i>Faculty</i>	<i>Faculty</i>
Kevin Carman Bryan Carstens Lori Crow Evanna Gleason Yong-Hwan Lee Steve Pollock		Coretta Douglas Tevfik Kosar Donald Kraft	Bill Blanford Latosha Mullins	Mike Cherry Joseph Dugas Juhan Frank Robert Hynes Kip Matthews Daniel Sheehy Christoph Wildfeuer
<i>Grad Students</i>	<i>Grad Students</i>	<i>Grad Students</i>	<i>Grad Students</i>	<i>Graduate Students</i>
Jacob Bitoun Alyssa Hakes Emily Jackson Heather Jackson Nathan Jackson Haijun Liu Adrienne Lopez Eve McCulloch Ursula White	Ricky Nellas	Mehmet Balman John Burris Promita Chakraborty Farid Harhad Sean O'Connell Cornelius Toole	Corine Armstrong Travis Atwood Frances Wendeborn	Jennifer Andrews, Catey Batte Tiffany Driscoll John Eley Shannon Fritz Peter Petrek Catie Talbert

## NEW GRANT FUNDING NOTICES

### *Biological Sciences*

**Mark Batzer**, "Determinants of human longevity and healthy aging project 1: population genomics of longevity and healthy aging," NIH, September 2007 through June 2008, \$131,503.

**John Fleeger** is co-PI with J. Cowan, K. Rose, and B. A. Fischer (Oceanography & Coastal Sciences), "Reef fish demographics on Louisiana artificial reefs: the effects of reef size on biomass, size structure, foraging dynamics, and the need to consider reef spatial arrangement to maximize utility," LA Wildlife and Fisheries, January 2008 through December 2008, \$391,536.

**John Fleeger** is co-PI with Linda Deegan, Ecosystems Center, Marine Biology Lab, Woods Hole, MA and additional faculty from Marine Biological Lab, Connecticut College, Middlebury

College, "Interacting controls on ecosystem function: Nutrient state and omnivory in salt marsh ecosystems," NSF, June, 2008-May 2012, \$1m.

**Gary King**, "Workshop to Integrate Microbial Biology and NEON," NSF, February 15, 2008 through January 31, 2009, \$79,085.

**John Larkin**, "Cell Differentiation and the Cell Cycle," NSF, February 15, 2008 through January 31, 2009, \$401,819.

**James Remsen and Richard Gibbons**, "A Search for the Ivory-billed Woodpecker (*Campephilus principalis*)," Louisiana Department of Wildlife and Fisheries, December 1, 2007 though June 30, 2008, \$10,000.

**William Wischusen** with co-PI's, S. Besson, N. McAnelly and B. Nixon (Partnership in Education),

F. Neubrandner (Arts & Sciences) and D. Kirshner (Education) "Geaux Teach: A replication of U Teach at LSU, SELU and SU," National Math and Science Initiative, November 2007 through July 2008, \$1,400,000.

### *Chemistry*

**Steve Soper, Robert Hammer**, with Co-PI's, W. Waggenspack, (Mechanical Engineering), **Mark Batzer** (Biological Science), and J. Goettert (CAMD), "Center for Biomodular Multi-Scale Systems: An enabling program for discovery and training in an interdisciplinary research," EPSCOR-NSF Research Infrastructure Improvement, October 2007 through September 2010, \$2,319,230.

### *Computer Science*

**S. S. Iyengar, Nathan Brener**, and **Bijaya Karki**, Center for high dimensional biomedical data with large bandwidth networking, data fusion and visualization to facilitate medical diagnosis and decision making," NSF/BOR, October 2007 through September 2010, \$317,948.

### *Physics & Astronomy*

**Joel Tohline**, "Gravitationally Driven Instabilities that Influence Stellar Evolution," NSF, August 2007 through July 2009, \$370,820.

**John Wefel**, "Louisiana NASA ESPCoR – Phase 3: Scientific and Technical Management (Part II)," BOR/NASA, October 2007 through September 2010, \$63,000.

## **PATENTS**

**Robert Hammer** (Chemistry), Francis Barany et al., (Cornell Research Foundation), and George Barany (Minnesota), were granted two patents for their work "Detection of Nucleic Acid Sequence Differences Using Coupled Ligase Detection and Polymerase Chain Reactions," No. 7,332, 285, (February 19, 2008) and No. 2,255,774 (March 18, 2008).

**Robert Hammer** (Chemistry), Yanwen Fu, Tod J. Miller, and Mark McLaughlin, "Anti-Fibril Peptides," No. 7,345,022, March 18, 2008.

## **MARQUEE PUBLICATIONS**

**Mark Batzer, Jerilyn Walker, and Miriam Konkel**, et al. (Biological Sciences) "[Genome Analysis of the Platypus Reveals Unique Signatures of Evolution](#)," *Nature* 453, 75-183, May 8, 2008.

**Brent Christner** (Biological Sciences) "[Ubiquity of Biological Ice Nucleators in Snowfall](#)," *Science* 319, no. 5867, 1214, February 29, 2008.

**James G. Traynham** (coming in 2009), *Organic Nomenclature: A Programmed Instruction*, 6th Edition. Prentice Hall, New Jersey. The publication of the 6th edition of this classic text comes on the 40th anniversary of the 1st edition and the 20th anniversary of Dr. Traynham's retirement as Professor in Chemistry.

## **STUDENT NEWS**

**Deric Griffin** (Biological Sciences) was among 57 students nationwide chosen to participate in the [Exceptional Research Opportunities \(EXROP\) program sponsored by the Howard Hughes Medical Institute](#) for summer 2008. EXROP, a component of HHMI's Undergraduate Science Education Program, provides summer research experiences to talented undergraduates from disadvantaged backgrounds in the labs of HHMI investigators and professors. Sarah De Leo of Biological Engineering was also chosen for the EXROP program.

**Brian Goh** (Biochemistry) and **Nabil Thalji** (Chemistry/Biochemistry) were two of four LSU students named [Barry S. Goldwater Scholars](#) for 2008. LSU is one of only two schools in the nation with four students ever chosen in the same year.

**Brian Goh** also received the New York Metro Area Internship Scholarship (LSU Alumni Association), which was created to help LSU students to participate in internship opportunities in the New York Metro area. He received a summer internship with the Columbia University, Department of Biomedical Engineering.

**Christina Michele Jones** (Chemistry) was chosen to receive the 2008 UNCF-Merck Undergraduate Science Research Scholarship.

**Clair Kendig** (Chemistry) was one of sixty-five students nationwide to receive the Harry S. Truman Scholarship. Claire was named Outstanding Junior in the Honors College.

Four Basic Sciences students were selected among the TigerTwelve for 2008. They include: **Donald “DJ” Higgins** (Biological Sciences), **Claire Reuter** (Biochemistry), **Arman Sheybani** (Biological Sciences) and **Kelly Wingerter** (Biological Sciences).

**Anna Normand** (Chemistry) was named the Outstanding Freshman in the Honors College.

**Jake Stowe** (Biochemistry/International Studies) was named the Outstanding Sophomore for the University at the Chancellor’s Honors Convocation. Jake was previously selected as Outstanding Sophomore for the College of Basic Sciences.

**Shawn Wilkinson** (Chemistry) was the first student to graduate from the College of Basic Sciences with the *Distinguished Communicator Award* recognizing outstanding achievement in four areas of communication: written, spoken, visual, and technological. The award, the first of its kind in the nation, was created through a rigorous set of standards set by college faculty and the Communications Across the Curriculum Program (CxC).

### SEND US YOUR NEWS!

The Basic Sciences e-Newsletter is distributed to all faculty and staff in the College of Basic Sciences and to a larger subscription list of administrators, alumni, and friends of the college. If you know someone who should be receiving the e-Newsletter and is not, please send their contact information and e-mail address to [bascdean@lsu.edu](mailto:bascdean@lsu.edu).

*Thank you to all of our contributors who provide the items for this newsletter.*

## DEVELOPMENT & FUNDRAISING UPDATE

The LSU College of Basic Sciences received a gift of \$1.5 million, part of a larger gift of \$2.5 million to LSU from Marathon Oil Company and **Clarence and Ann Cazalot**. The donation earmarked for the Geology & Geophysics department represents the largest corporate donation to the College of Basic Sciences in its history. The gift to Basic Sciences includes three components: **Marathon Geoscience Diversity Enrichment Program** (Marathon GeoDE); Marathon Oil Corporation Distinguished Speaker Series; and to renovate the atrium of the Howe-Russell Geoscience Complex, which will be renamed the Clarence P. Cazalot, Jr./Marathon Oil Corporation Atrium.

**Jerry and Nancy Dumas** of Houston made a gift of \$360,000, which when matched from the Board of Regents (\$240,000), will establish a \$600,000 professorship fund to support graduate stipends.

**Scott and Susan Brodie** of Houston donated \$200,000 to support geology and physics students. \$140,000 of the gift will be added to the Science Honors Scholars Endowment, and \$60,000 (plus \$40,000 state match) will be used to establish an endowed professorship in Physics & Astronomy that will be designated for graduate student support.

**Calvin and Carolyn Mattax** of Houston have pledged a gift of \$60,000, which when matched from the Board of Regents (\$40,000), will establish a \$100,000 professorship that will support graduate stipends.

**Mark and Mary Schroeder** of Houston made a gift of \$10,000 to the William A. Pryor Professorship Fund in honor of Dr. Pryor.

The **Hach Scientific Foundation** made a gift of \$12,000 to continue undergraduate scholarships begun in 2007 in the Department of Chemistry.

**Northrup Grumman** made a gift of \$50,000 to the Department of Physics & Astronomy for the Quantum Optical Sensing Research Support Fund.

## ALUMNI NEWS UPDATES

**Novella Bridges** (PhD, 2000, Chemistry), a graduate of the Stanley group, is featured in the NOBCCChE "[Chemistry](#)."

**Hamed Shadpour** (PhD, 2006, Chemistry), who is currently in a postdoctoral researcher position at the (University of North Carolina), and current PhD candidate Andre Adams (Soper Group) are co-chairs of the 2008 Gordon-Kenan Graduate Research Seminar on Bioanalytical Sensors to be held in June in Rhode Island.

## COMINGS AND GOINGS

**Peggy Sims** retired after serving 15 years as office manager for the Museum of Natural Sciences. Congratulations and best wishes to her.

The **Scope-On-A-Rope Program Office** has moved. SOAR Program Coordinator **Adrienne Lopez** has relocated the SOAR office to the Museum of Natural Sciences in Foster Hall. Her new phone number is 578-3080 and fax is 578-3075.

## IN MEMORY

Our thoughts and prayers go to the family, friends, and colleagues of **Virginia Duncan** who passed away April 23<sup>rd</sup>. She was a valued member of the staff in the Department of Biological Sciences and we will miss her.

## CORRECTION

**Dana Browne, Roy Goodrich, David Young** and **Amar Karki** (Physics & Astronomy) along with **Dixie Gautreaux** and **Julia Chan** (Chemistry) published a paper in the IOP Publishing journal, *Journal of Physics: Condensed Matter*. "Magnetotransport properties and the Fermi surface of single crystal VB<sub>2</sub>," appears in the [online edition](#) and was also featured in the January 2008 print version. Mr. Karki was previously misidentified.

## SPECIAL RECOGNITIONS

### Executive Committee Meets/Selects New Chair

The College of Basic Sciences Executive Committee held its semi-annual board meeting May 2<sup>nd</sup>. The meeting, which coincided with the date of the Hall of Distinction, brings members to campus to discuss the College's programs, progress in the Forever LSU Campaign, and other issues relevant to the National Flagship Agenda. Dr. Terry Latiolais was chosen to assume the role of committee chair and the members thanked Ed Picou for his term of nearly three years as chair.

### Four Inducted to Hall of Distinction

Dr. Jim Andrews, an orthopaedic surgeon and sports medicine specialist in Birmingham, Alabama, Boyd Professor of Physics Joseph Callaway III (1931-1994), Boyd Professor Emeritus of Chemistry William A. Pryor, and Eugene St. Martin, a retired urologist in Shreveport, were inducted into the Basic Sciences Hall of Distinction May 2.

Left to right: Dr. James R. Andrews, Dr. Eugene C. St. Martin, Dr. William A. Pryor, Dean Kevin R. Carman, and accepting on behalf of Dr. Joseph Callaway III were his daughter Sybil Callaway, son Joe Callaway, wife Mary Callaway, and son Paul Callaway. The entire Hall of Distinction gallery can be viewed online via the [college's webpage](#).

