Dear Friends and Colleagues,

It has been quite some time since our last newsletter, which means that there is much to catch up on. I think that the biggest news of the fall was the transition of the Department of Mathematics into the College of Basic Sciences, which became official on October 1. I am personally delighted that this outstanding program is now part of our family of scholars and I am confident that the merger will result in many fruitful collaborations and synergisms. The $5M NSF grant for science and math teacher education (Jim Madden, Math PI; Gary Byerly, BASC and Geology, Co-PI) is a good example, and we will soon be able to formally announce an even larger MATH/BASC STEM education grant from the Department of Energy.

The Choppin Annex project is still moving along. Our latest word is that bids will be opened in February, 2010, and construction will begin in March. This will be a 5-story building devoted primarily (3 floors) to Chemistry and secondarily (2 floors) to Materials Science & Engineering.

We haven’t received any substantial new on budget projections since Governor Jindal informed us that we need to prepare for a $26M budget reduction for next year. Several people have asked me about the prospect of mid-year cuts; I haven’t heard any rumors but the recent announcement of a mid-year budget shortfall is certainly something that we’ll monitor closely. As for next budget year, the Chancellor is working with the legislature in hopes of establishing a $500/semester fee that would essentially offset the $26M cut, though approval of the fee is by no means certain. At Provost Merget’s request, I have been working through the fall with other deans, faculty, and administrators on a “Multi-Year Budget Task Force”; our charge is to propose a framework for addressing future budget challenges while maintaining the integrity of the university. Looming large within the budget concerns is the fate of CAMD. As Interim Director of CAMD, Rich Kurtz has been working diligently to identify possible funding sources that could provide financial stability. Many options are being considered and actively pursued, and we remain committed to finding a way to keep this vital asset.

In spite of budget concerns, we are proceeding with a few strategic and critical faculty hires for next year. These include 3 computational biologists (in Biological Sciences) and an organic chemist and a biophysical chemist (in Chemistry). We also have an ongoing search for to fill 4 open endowed chairs in Geology & Geophysics; we expect that it will take a couple of years to fill all of these positions, but are hopeful that at least one will filled by fall 2010.

I’d also like to mention that we have been working with Zachary High School to get gifted and highly motivated high-school students involved with research at LSU. This fall we placed students in the laboratories of John Battista, Evanna Gleason, and Prosanta Chakrbarty; I am grateful to them for taking on this mentoring role. If this program is successful, we hope to expand it into the
future; please let me know if you might be interested in working with an outstanding young scholar.

Finally, I’m pleased to note that the College is on pace for a record year in extramural funding. Through November Basic Sciences has generated $25.4M in grants. Both Chemistry and Geology & Geophysics have already surpassed their total funding from the 2008-09 fiscal year. Even after subtracting the $4.6M generated by Math (!!), we are $3M ahead of any previous November total. Well done!

Here’s wishing all the best to you and yours for a wonderful holiday season.

Regards, Kevin C.

KUDOS

Associate Vice Chancellor for Research and Economic Development Doris Carver (Computer Science) will become Interim Vice Chancellor as of January 1, 2010. She will fill the vacancy created by Vice Chancellor Brooks Keel (Biological Sciences) who will begin his appointment as President of Georgia Southern University on January 1.

Susanne Brenner (Mathematics) recently returned from a month as Overseas Visiting Professor at the State Key Laboratory of Scientific and Engineering Computing (LSEC) at the Chinese Academy of Sciences in Beijing, China.

Dean Kevin Carman, Ward Plummer, and Rongying Jin, and Jiandi Zhang (Physics & Astronomy) recently negotiated an agreement creating a unique dual-doctorate program between LSU’s Department of Physics & Astronomy and the Institute of Physics at Beijing’s Chinese Academy of Sciences.

Brent Christner (Biological Sciences) served on the Antarctic Organisms and Ecosystems review panel within the NSF Office of Polar Programs.

Rebecca Effler and Allysa Hake (Biological Sciences) were recognized for service learning efforts in helping to reduce the impact of environmentlly detrimental plant species at Bluebonnet Swamp.

Colleen Fava (CxC) et al., created a model for communication projects in the sciences titled “Professional Communication Projects: Training Science Students to Communicate.”

Joe Giaime (Physics & Astronomy) was named a Fellow of the American Physical Society.

A figure by Bijaya Karki and Dr. Bhattarai published in volume 27 of the Journal of Molecular Graphics and Modelling has won the 2009 Graphics Prize for the best piece of artwork.

Tevfik Kosar (Computer Science) was named to the Baton Rouge Business Report’s Top Forty Under 40.

Saundra McGuire (Chemistry) has been chosen as a member of the National Science Foundation’s Committee of Visitors for its Division of Chemistry.

John Pojman (Chemistry) was named to the Suborbital Applications Researchers Group (SARG) by the Commercial Spaceflight Federation for his expertise in microgravity chemistry. In addition, he was highlighted in C&E News for his collection of pocket protectors.

The journal Classical and Quantum Gravity highlights a community paper called “Testing Gravitational-Wave Searches with Numerical Relativity Waveforms: Results from the First Numerical Injection Analysis (NINJA) Project,” with authors from many institutions, including several current and former members of LSU’s Department of Physics & Astronomy.

Jorge Pullin (Physics & Astronomy/CCT Interim Co-Director) has been invited by the International Society on General Relativity and Gravitation to run for president of the organization.

Beverly Rodriguez (Physics & Astronomy) received a 2009 LSU Foundation Outstanding Staff Service Award.

Kresimir Rupnik (Chemistry) was an invited speaker at the 2009 Workshop in Magneto-Optics, in October at the National High Magnetic Field Laboratory in Tallahassee, Florida.

George Stanley (Chemistry) appeared in the August 14th online edition of The Sceptical Chymist.

Thomas Sterling (Computer Science/CCT) was named one of the five Inaugural Fellows for the International Supercomputing Conference (ISC).

Brygg Ullmer (Computer Science/CCT) has been invited to serve as Associate Chair for Papers/Notes at CHI (ACM Conference on Human Factors in Computing Systems) 2010. Ullmer was also presented the ACM UIST “Lasting Impact” Award for research he first presented in a paper in 1997.
Xiaolang Wan (Mathematics) joined the Core Computational Science Focus Area at the Center for Computation and Technology.

Chancellor Emeritus Jim Wharton (Chemistry) is serving on the Louisiana Postsecondary Education Review Commission charged with reforming the state’s higher education structure.

Zakiya Wilson (Chemistry) received a 2009 LSU Foundation Outstanding Staff Service Award.

The LSU Chapter of the Association for Women in Mathematics (AWM) was awarded $1,500 by the national association to host a Sonia Kovalevsky High School Mathematics Day on the LSU campus in February 2010.

Thirty-four faculty members from the College of Basic Sciences were named 2009 Rainmakers. Congratulations to all of them!

The Basic Sciences Communications Across the Curriculum Studio (CxCC) under the direction of Colleen Fava was awarded the Certificate of Excellence from the Conference on College Composition and Communication (CCCC). The award includes approximately $15,000 to purchase portable technology for use by undergraduate science students.

MARQUEE PUBLICATIONS


Adrienne Lopez, LSU Scope-On-A-Rope Program Coordinator, collaborated with Real Curriculum, Inc., to produce a series of educational curriculum guides. SOAR Into Inquiry is geared for elementary teachers (grades K-5) looking to incorporate this video microscope into their science curriculum in a meaningful way.


PATENTS


NEW GRANT FUNDING NOTICES

PROSPECTIVE SCIENCES


Robb Thomas Brumfield and Andres Mauricio, “A large-scale, multilocus, coalescent-based analysis of ecological zonation and population differentiation in Andrean birds,” NSF, June 2009 to May 2010, $15,000.

Bryan Carsten with Co-PI Margaret Koopman, “Evolution of Louisiana Pitcher Plants (Sarracenia alata) and their commensal bacteria,” Louisiana Board of Regents, June 2009 to June 2011, $102,200.

Bing-Hao Luo, “Screening of integrin alpha(IIb) beta(3) inhibitors by SHG,” Louisiana Board of Regents, June 2009 to June 2012, $141,732.

Vince LiCata, “Properties of Denatured States of Thermophilic versus Mesophilic Proteins,” NSF, September 1, 2009 to August 31, 2012, $590,426


Marcia Newcomer, Victor Suller, Henry Bellamy, James Spivey, and Les Butler (Chemistry), “MRI: Acquisition of a Multipole Wiggler for the LSU Synchrotron for Protein Crystallography, Tomography, X-ray Absorption, Radiology, and Microfabrication,” NSF, $1,260,000.


William Platt and Tracy Lynn Hmielowski, “Resprouting response of Southeastern Hardwoods to Season, Ignition, and frequency of prescribed fire treatments,” Louisiana Department of Wildlife & Fisheries, June 2009 to June 2010, $1,000.


CHEMISTRY

Barry Dellinger, et al., (see link) “Health Impacts of Toxic Combustion By-Products,” NIEHS, August 15, 2009 to July 31, 2011, $3,600,000.


COMPUTER SCIENCE


Tevfik Kosar, “Data-aware Distributed Computing for Enabling Large-scale Collaborative Science,” NSF CAREER Award, five-year term, $400,000.


ShuqiangWei (ECE) and Co-PI Rajgopal Kannan, “Cognitive Radio and MAC Layer Enhancements for Wireless Communication Networks,” Louisiana Board of Regents, June 2009 to June 2011, $169,000. They received additional funding for $31,000 from Bascom Hunter.

Lynne Baggett and Co-PI’s Mary Kornhauser and Fredrick Parker (Art and Design) and Brygg Ullmer, “Internal Operations/External Communications,” Louisiana Board of Regents, June 2009 to June 2010, $40,000.

GEOLOGY & GEOPHYSICS

Guoping Zhang and Co-PI’s Qin Jim Chen and Chunshen Cai (CEE), Robert Gambrell and Nan Walker (Oceanography/Coastal Sciences); Alixin Hou (Env. Sciences) and Ray Ferrell, “Acquisition of a suite of field testing equipment for integrated enhancement of research and education on coastal sediment studies,” Louisiana Board of Regents, June 2009 to June 2010, $148,325.

MATHEMATICS


PHYSICS & ASTRONOMY


Jonathan Dowling, “Quantum Technologies for Space Applications,” Louisiana Board of Regents, June 2009 to August 2009, $6,000.


Ilya Vekhter, “ICAM Senior Fellowship Award,” UC-Davis, July 2009 to June 2010, $13,000.

Correction from the previous issue….


STUDENT NEWS

Gustavo Bravo, Biological Sciences graduate student, won a best student presentation award at the annual meeting of the American Ornithologists’ Union at the University of Pennsylvania.

Delong Meng, a 2009 graduate of Baton Rouge High School who just entered MIT, won a Silver Medal and was a member of the USA Team finishing sixth at the 2009 International Mathematical Olympiad, held this year in Bremen, Germany. He was coached by one of the department faculty, Professor Hongyu He.

Hector Urbina, Biological Sciences graduate student, won one of the equal two student poster prizes at the annual Mycological Society of America meeting at Snowbird, Utah.

DEVELOPMENT HIGHLIGHTS

Mary Lou Applewhite: $35,000 to benefit the College Development Fund.

Clarence and Ann Cazalot: $10,000 to the College Development Fund.

Ron and Mary Neal: $11,200 to support the Earnest and Alice Neal Professorship in Geology & Geophysics and the Mary Neal Professorship in the Department of Biological Sciences.

James Painter: $12,000 to the Geology Field Camp Support Fund.

The Brookhill Foundation: $51,000 to the High Performing Mathematics Program Support Fund.

Chevron: $40,000 to support Applied Depositional Geosystems (ADG), the Student Field Trip Support Fund in Geology & Geophysics, and the Chevron Computer Science Scholarships.

Entergy: $50,000 to the health physics program in the Department of Physics & Astronomy.

ExxonMobil: $11,000 to the Geology & Geophysics and Computer Science Development Funds.
Halliburton: $35,000 to support the Halliburton Field Camp Scholars Fund and the Geology Freshman Field Camp Program Support Fund.

Marathon Oil Company: $31,000 to support the Marathon Oil Company Geophysics Scholarship Fund, the Marathon Oil Company Geology Scholarship Fund, and the Geology Development Fund.

**ALUMNI NEWS**

Ashley Henderson (BS, CSC, 2005) is a software engineer for MorphoTrak in Tacoma, Washington.

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**NEWSLINKS**

The hyperlinks below direct your Internet browser to the web pages for the college’s departments and the museum. News highlights also appear on the college’s [Home Page]:

- Biological Sciences
- Chemistry
- Computer Science
- Geology & Geophysics
- Mathematics
- Physics & Astronomy
- Museum of Natural Sciences

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**CALENDAR OF EVENTS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>December 18</td>
<td>BASC Diploma Ceremony</td>
<td>9:00 AM UREC (University Recreation Complex)</td>
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<tr>
<td>January 18</td>
<td>Martin Luther King Holiday</td>
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<tr>
<td>January 19</td>
<td>Classes Begin for Spring semester</td>
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The revised 2009-10 Academic Calendar. You can find the revised [calendar here].

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**Keep the good news coming to us!**

bascdean@lsu.edu

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**HAPPY HOLIDAYS TO EVERYONE FROM**

**THE COLLEGE OF BASIC SCIENCES!**