

# SCIENCE AND ENGINEERING

# Spring 2012

#### NEW WAVE NEWS

Dean meets with President Obama »

Lab Probes Stem Cell Potential »

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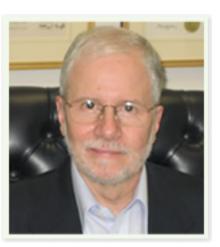
Chemical and Biomolecular Engineering Professor Vijay John, is the lead investigator in a research consortium that was awarded \$10,388,000 from the Gulf of Mexico Research Initiative to investigate the fate of crude oil discharges on the environment, the impacts of the Deepwater Horizon oil spill on the Gulf of Mexico, and the development of new tools and technology for responding to future spills. The consortium involves 43 researchers from 22 institutions, including 5 investigators from CBE at Tulane (Professors Pratt. Pesika, Ashbaugh, Papadopoulos and John).

Chemical and Biomolecular Engineering Professor Lawrence Pratt (with seven other Tulane colleagues) was awarded \$498,651 for one year from the National Science Foundation to study computational materials science under the "Louisiana Alliance for Simulation Guided Materials Applications" (LA-SiGMA: Louisiana EPSCoR Research Infrastructure Improvement: Computational Materials).

### Message from the Dean

Nicholas J. Altiero, Dean

Learn. Discover. Collaborate. Innovate. These four words on the home page of the School of Science and Engineering web site encapsulate the spirit and the mission of the School. Learning is an obvious component as we are, after all, a university and the acquisition and dissemination of knowledge is at the core of what we do. And Tulane is a research university so discovery and innovation (the objectives of basic and applied research) are also central themes. But what distinguishes us among our peer institutions is the extraordinary emphasis that we place on collaboration and, in particular, on collaboration among scientists and engineers toward the goal of making



more immediate the impact of scientific discovery on technological innovation.

Read Dean's Message »



### Dr. Irwin Frankel (E '42) A Place to Thrive

Article by John Carr

In 1942, Irwin Frankel earned his bachelor's degree in chemical engineering from Tulane University. After serving in World War II as an aircraft maintenance officer with the Army Air Corps, he earned a master's degree from Case Institute of Technology and a doctorate from Rensselaer Polytechnic Institute.

When he retired as a chemical engineer in 1995, he held three U.S. patents.

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# Mac Hyman Brings His Passions Home

Article by Robert Morris

When a young Mac Hyman first stepped on Tulane's campus more than 40 years ago, it immediately felt like home. Now — after a career that has put him at the forefront of the world's most pressing scientific problems — Mac has come home again.



Earth and Environmental Sciences Professor Nancye Dawers was awarded \$100,000 from the American Chemical Society to study channel patterns and topography around active faults, in order to better understand geological complexity in hydrocarbon reservoirs.

Earth and Environmental Sciences Professor Kyle Straub was awarded \$179,302 from Shell Exploration & Production to study sediment transport on the continental slope and its role in the construction of deep-water petroleum reservoirs.

Mathematics Professor Alexander Kurganov was awarded \$118,621 from the National Science Foundation to study new numerical methods for nonlinear partial differential equations.

Chemical and Biomolecular Engineering Professor and Associate Provost Brian Mitchell received a fellowship from the Alexander von Humboldt Foundation for a Renewed Research Stay to be carried out at the Max Planck Institute of Colloids and Interfaces in Potsdam, Germany during the summer of 2012. Dr. Mitchell also was recently elected Fellow in the American Institute of Chemical Engineers.

Chemical and Biomolecular Engineering Professor Kim O'Connor's research group's poster, "K Russell, D Phinney, M Lacey, B Barrilleaux, K Meyertholen, and K O'Connor\*. High-capacity assay to quantify the clonal heterogeneity in potency of mesenchymal stem cells" was selected as a finalist (top 7%) at the 2011 Meeting of the European Society for Animal Cell Technology in Vienna, Austria.

#### CONTACT US

Tulane University School of Science & Engineering Suite 201, Lindy Boggs Center for Energy and Biotechnology New Orleans, LA 70118 "I've always sought places where I can have an impact and be engaged in the community.

After Katrina, Tulane kept pulling me back to New Orleans." Mac said.

Originally from Lakeland, Fla., Mac was graduating high school in 1968 and considering several southern universities before he visited Tulane for the first time.

"This was the one I didn't want to leave," Mac said. "I felt at home as soon as I walked on campus."

Read Full Story »



# John Drwiega, Administrator of Cell and Molecular Biology

Article by Robert Morris

John Drwiega sees his job as administrator of the Department of Cell and Molecular Biology as a perfect fit for his skills and interests. The department, however, sees John as simply indispensible.

"Without him, I would probably resign," Dr. YiPing Chen,

the department chair, says with a laugh.

Drwiega's journey to the department was a long one, but in many ways seems fated from the start. It started in 1976, when the Chicago native came to Tulane as an undergraduate.

Read Full Story »

## Spotlight on Undergraduate Research

Article by Robert Morris

Undergraduates in the School of Science and Engineering continue to immerse themselves in exciting research projects under faculty guidance, such as investigating the ongoing effects of the Deepwater Horizon oil spill, modeling genetic diversity in humans, and working with local companies to implement new technology.



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### **Upcoming Events**

School of Science and Engineering Highlights

School of Science and Engineering Outstanding Researcher Ceremony

Thursday, April 12, 2012 3 PM – 4 PM Lavin-Bernick Center for 2012 Graduate Programs
Recognition and Hooding
Ceremony

Friday, May 18, 2012 10 AM Phone: 504-865-5764 Fax: 504-862-8747

sse@tulane.edu

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INVESTING IN SSE

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University Life Kendall Cram Lecture Hall. Room 213 Evervone is Invited

### School of Science and Engineering Research Day - Poster Session

Thursday, April 12, 2012 4 PM - 6 PM Lavin-Bernick Center for University Life Qatar Ballroom, Room 212 Everyone is Invited

### School of Science and Engineering **Distinguished Leadership Circle** Reception AND 2012 Science and **Engineering Alumni Awards** Celebration

Thursday, April 12, 2012 6 PM - 8 PM Lavin-Bernick Center for University Life 1834 Club, Room 215 Invitation Only **About Science & Engineering** Alumni Awards »

**View All Events »** 

Dixon Hall, Tulane Uptown Campus School of Science and Engineering, School of Continuing Studies, School of Liberal Arts, and the School of Medicine – Biomedical Sciences Reception immediately following in the Lavin-Bernick Center Qatar Ballroom, Room 212 All graduating PhD and Master's students from all listed schools and their quests are invited.

### 2012 School of Science and **Engineering Celebration Toast to Graduating Seniors**

Saturday, May 19, 2012 11:30 AM - 1:30 PM Mercedes-Benz Superdome All science and engineering graduating seniors and their quests are invited to join Dean Altiero and the School of Science and Engineering faculty for a celebration toast.

Immediately following the conclusion of the Unified Ceremony - Tickets will be required

See a weekly schedule of Science and Engineering Seminars open to the public »

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