Dear Friends:

It’s the close of another year, and time for news and an update of the Department’s progress. We are now fully recovered from the Katrina years and integrated into the School of Science and Engineering. Our final Katrina class graduated in 2009. We will always be grateful to the classes of 2006-2009 for working with us and staying with us through all the difficult times. We are so proud of them. Our enrollments have now stabilized and our graduates continue to be highly successful in industrial careers and in pursuing graduate level education.

We have now received the final report from ABET accrediting the department for a full six-year period. The report was highly complimentary to the quality of education that we impart to our students. We are proud not only of the education our students receive, but of the fact that they are integrated into the University’s distinctive mission of public service. Our students are all involved in the community, whether it is in doing science demonstrations at the New Orleans School of Math and Science or designing the hands-on-trainer unit at Nunez Community College to help rebuild the Process Technology Program there. In their own way, they are making a difference to the largest rebuilding mission that the nation has carried out.

Our faculty continue to progress well in their careers at Tulane. Dr. Godbey received the NSF CAREER award in July 2009, a tremendous mark of recognition of his research potential. Opportunities for collaborative and interdisciplinary work have opened up tremendously, and there are several fruitful collaborations with the School of Medicine, the School of Public Health, and the physical and life science departments in the School of Science and Engineering. While scholarly research continues to be a focus of the department’s mission, the faculty are also involved in developing intellectual property through disclosures, patents, technology licensing and small business start-up efforts. The Department spearheaded a successful University-wide effort to acquire a field-emission transmission electron microscope through the NSF ARRA program. The $1.3M instrument will be the center-piece of our imaging facility and will allow us to do state-of-the art imaging relevant to biological and materials research.

Finally, we are very close to our goal of completing funding for the Taylor Laboratory Renovation Project. We have applied to the NSF ARRA program for funding to complete the project. If the ARRA funding is realized, we will be able to immediately start the project. Regardless, with matching contributions from the University, we should be able to start the project in 2010. The full architectural plans have been drawn up and the project is shovel-ready. This is the highest renovation and building priority in the School of Science and Engineering and the Department is extremely grateful to our alumni and friends who have made donations to the project. We continue to seek funding from our alumni that will help us complete the effort.

As always, we look forward to hearing from our alumni. You have made us proud through your accomplishments, and we intend to maintain the standards of excellence in research and education through the coming years. Thank you for being so supportive of the Department.

Wishing you all a wonderful holiday season.

Vijay John, Chair
**Undergraduate Awards**

CBE junior, **Bryan Yonemoto**, won the **AIChE Activity Award** for outstanding services to the profession.

The **AIChE Senior Scholarship Award** was presented to **Jesse McManus**, the senior with the highest scholastic average.

The junior with the highest scholastic average, **Adam Pacsi**, won the **AIChE Highest Scholastic Average** award.

Senior, **Alexandra Lupulescu**, won the **Francis M. Taylor Award** for outstanding citizenship.

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**Faculty News**

**W T. Godbey**, was recognized at the Louisiana Board of Regents meeting in Baton Rouge, LA on Thursday, September 24, as one of eleven 2009 National Science Foundation (NSF) CAREER Award winners from Louisiana – one of four from Tulane.

During a public ceremony at the end of the Board's regular business meeting the recipients were honored for their accomplishments as teacher/scholar. As part of the public ceremony Dr. Godbey spoke about his research in Modeling and Applications of Expression-targeted Gene Delivery.

Godbey has been awarded a $400,000 grant over a period of 5 years to continue his research in gene therapy, with a focus on expression targeting. This research could lead to tangible applications that include a treatment for transitional cell carcinoma and a way to communicate with stem cells for in situ tissue engineering applications.

**Brian S. Mitchell** presented a poster on his collaborative work with Prof. Mark Fink (Chemistry) at the NSF Civil, Mechanical and Manufacturing Innovation grantees’ conference in Honolulu, Hawai’i on June 23, 2009.

He also presented his Louisiana Board of Regents Speaking of Science career presentation to students at Zachary High School on April 24 and Jewel M. Sumner High School in Kentwood on March 6, 2009.

**Kim O’Connor** recently published her research on adult stem cells in the journals Tissue Engineering and Biotechnology Letters, and another article in Chemical Engineering Education. This summer she delivered an invited seminar at Trinity College in Ireland.

Prof. O’Connor and her graduate students have given speeches on their research at the European Society for Animal Cell Technology, American Institute of Chemical Engineers, and Society for In Vitro Biology. They presented posters at the Federation of American Societies for Experimental Biology, American Institute of Chemical Engineers, and Biomedical Engineering Society. Their stem cell research was presented at Seoul National University in South Korea and Taiwan International Somatic Stem Cell Symposium in Taipei. Prof. O’Connor has chaired sessions on stem cell biology and animal cell biotechnology at the Society for In Vitro Biology in Tucson.

In April 2009 **Kyriakos Papadopoulos** gave invited lectures at the University of Tokyo and Tokyo University of Science (TUS). He was invited back to TUS as a Visiting Professor, November 23 – December 11, with the last three days of his Japan stay devoted to participation in TUS’s 4th International Collaboration Workshop. Kyriakos anticipates a multifaceted research and educational relationship between Tulane and Tokyo University of Science in the future.

Through the efforts of Professor **John Prindle**, the Department has received a $10,000 donation from Chevron Corp., College Recruiting Division to be used for undergraduate scholarships. Two $5,000 scholarships will be awarded to CBE juniors to be used for tuition, room & board and/or books. We are grateful to **Blaine Fury** (’81) and Ms. Lauren Burke at the Chevron Belle Chasse, LA site for their work in providing these scholarship funds which will be awarded in spring 2010.

The Department led a successful University-wide proposal to the National Science Foundation through their Major Research Instrumentation program funded by the ARRA initiative. The university will acquire a field emission transmission electron microscope for imaging of biomolecular and nanoscale materials.
Alumni News

CBE Alumna and first lady of Louisiana, Supriya Jindal, presented the luncheon talk at the 9th Annual Tulane Engineering Forum in April 2009. Supriya spoke about her mission to expose more of Louisiana’s children to careers in the fields of math and science and her goal to bring innovative technology to Louisiana’s classrooms.

The first annual School of Science and Engineering Alumni Awards honored two CBE graduates as “individuals who, through exemplary accomplishments and recognition, epitomize the potential of a Tulane education and thereby bring credit and honor to the university/school.

Joseph F. Boston, (PhD ’70), past president and member of the CBE Board of Advisors, was the first recipient of the School of Science and Engineering Outstanding Alumnus award.

The first recipient of the Outstanding Young Alumnus award was Blake Simmons, (PhD ’02).

The awards were presented during a luncheon at the Audubon Tea Room in New Orleans in May 2009.

While on her first official visit to New Orleans as EPA Administrator in November 2009, Lisa P. Jackson, a summa cum laude graduate (class of ’83), visited Tulane as the guest of the John J. Witmeyer III Dean’s Colloquium through the Newcomb-Tulane College Office of Cocurricular Programs.

During her talk Lisa encouraged spectators to find their special role in New Orleans to make change. “When I think about EPA, I think of how we can touch communities,” Lisa said. “The environment is not a political issue – all people have the right to clean water, air and land.”

Lisa is scheduled to be the luncheon speaker at the 10th annual Tulane Engineering Forum in April 2010.

Byron McCaughey (PhD ’05) recently moved back to the New Orleans area with his wife Tiffany. Byron is at Rubicon working as a Process Engineer on plant support, automation, and advanced technology. Rubicon, a Huntsman site, produces isocyanate and polyl raw materials for polyurethane applications such as insulating foam, adhesives, coatings, and elastomers. Byron’s work involves improving plant safety and efficiency by identifying and installing new equipment in a series of batch reactors; creating and testing new batch reactor control sequences; and investigating long-term plant issues such as CSTR cooling of a material near its freezing point, mixing of liquid-liquid and liquid-liquid-vapor systems, and episodic carry-over of liquid and solid components into CSTR vent streams.

Tiffany, a Newcomb College graduate, is working at Loyola University as a psychologist. The couple moved back to Metairie a few months ago and are enjoying the city again.

Byron has offered to explore research collaboration opportunities with the Department, as well as coordinate plant tours and possible summer internship positions for undergraduate students.

Undergraduate Awards

Juniors, Jennifer Staton and Daniel Fagnant, received The Randall K. Nichols Award for talents worthy of recognition and encouragement.

Omega Chi Epsilon members chose June Naiki as the ember who best exemplifies their ideals. OCE President Amy Beasten helped present the award.

Rajesh Venkatasubramaniam, was chosen by members of OCE as the Outstanding Teaching Assistant.

Le Li was presented the American Institute of Chemists outstanding senior award.
Alumni News (continued)

We are grateful to all of our Alumni who have contacted us with job and internship opportunities for our students and those who have supported our undergraduate recruiting efforts including, but not exclusively:

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<th>Clay Alexander ('09)</th>
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<td>Daniel Charles ('08)</td>
<td>Ai Nguyen (’08)</td>
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<td>Maria (Gabby) Dipp ('09)</td>
<td>Ernesto Pichardo (’06) &amp; Jenny Kirk Pichardo (’06)</td>
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Two of our recent alumni have found wonderful faculty positions:

Homgmei Luo (PhD ’06), at New Mexico State University in Chemical Engineering.

Donghai Wang (PhD ’06), at Penn State in Mechanical Engineering.

This is recognition of both their advisor and the growing reputation of the Department.

Student News

Bhanukiran Sunkara, a Doctoral student in the Department, won first place ($500 and plaque) in the AIChE Environmental Division’s 2009 Graduate Student Paper Competition for his paper, “Multifunctional Nanoparticulate Systems for In-Situ Remediation of Chlorinated Hydrocarbons.” This national award was presented at the November 2009 AIChE Annual meeting held in Nashville, TN. Bhanu’s advisor is Vijay John.

Doctoral student, Joy St. Dennis, visited the Materials and Structures Division of the NASA Glenn Research Center in Cleveland, Ohio. During her two-week stay, she had hands-on access to their specialized facilities, performing a variety of experiments and analysis techniques in the development of new polymer-carbon composites. The results were introduced at the recent AIChE conference in Nashville, and will be used in her doctoral dissertation and co-authored papers between NASA and Tulane researchers. Dr. Vijay John and Joy were most gratefully awarded a STARS Travel Grant, through the Louisiana Board of Regents, providing travel support for the research experience.

Lynn Li (BS ’09) won first place for the best research presentation at the AIChE Southeast student conference in April 2009. She presented her work at the National AIChE student conference in November and was awarded honorable mention. Lynn’s research advisor was Vijay John. She is currently pursuing a Ph.D. at the University of Texas at Austin.

In October, during a trip to New Orleans, the past President of India, Dr. A.P.J. Abdul Kalam, was guided on a tour of the Electron Microscopy Lab in the School of Science and Engineering by Professor Vijay John and CBE graduate students Pradeep Venkataraman, Rajesh Venkatasubramanian, Thirusulvam Ponnusamy, Ashish Sangwai and Amit Jain.

Dr. Kalam spoke at Tulane’s Lavin-Bernick Center to over 300 university students and community members from New Orleans, Baton Rouge and surrounding areas. He reflected on his early career as an aeronautical engineer and his term as the 11th President of India. Kalam spoke about his current humanitarian work and future goals for the people of India.

At the end of the talk a student asked what she could do from here in the U.S. to help toward Kalam’s goals for India. “You should not worry about India,” Kalam said. “Just do your best in your studies and for the country where you are living.” The audience responded with a standing ovation.
The Distinguished Graduate Student Award was presented to graduate students whose research has resulted in a first-authored journal publication in calendar year 2008. In December 2008 four students received the award; (above, l-r) Ashish Sangwai, Amit Jain, Xiujuan Zhang, Jingjing Zhan

Xiujuan and Jingjing also received the Outstanding Research Award, presented to graduate students who have demonstrated creativity, independence, self motivation and productivity.

The American Institute of Chemists (AIC) Outstanding Postdoctoral Researcher Award was presented to Grace Tan (below).

Ashish Sangwai and Amit Jain won the AIC Outstanding Graduate Student award.

Congratulations Graduates

2008-2009 Graduate Degrees

Christopher Day (M.S.)
Andrew Heintz (Ph.D.)
Cindy Littleton Hetzer (M.S.)
Amanda Moster (Ph.D.)
Dimitrios Vavlekas (M.S.)

Undergraduate Class of 2009

Clay P. Alexander
Amy E. Beasen
Olusola T. Cardoso
Christina Lee Carpenter
Gregory E. Cmarik
Ryan Joseph Gray
Andrew Scott Katz
Meghan Nicole King

Le Li
Alexandra Ioana Lupulescu
Jesse Ryan McManus
Zakhar M. Melman
June Naiki
Ronald Austin Nowak
Moshe E Wolfe

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New Orleans, LA 70118-5698
bal@tulane.edu
The Taylor Laboratory Renovation Project is the highest renovation and building priority in the School of Science and Engineering. The Department is extremely grateful to our alumni and friends who have made donations to the project. We continue to seek funding from our alumni that will help us complete the effort.