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E-NEWSLETTER

From the Dean



Dean Paul Paulus

As part of our effort to communicate some of the many exciting happenings in the College of Science with our friends, alumni, faculty and staff, we will be distributing our college e-newsletter periodically. I hope you will enjoy reading about our various accomplishments and activities. If you have suggestions for stories or information that should be shared in a future newsletter, please send them to Jasmine Chavers (jchavers@uta.edu). We have made a lot of progress as a college in the last few years. We have hired some great faculty and staff, added some new teaching and research space, and initiated a number of new educational, research and outreach programs. The future of our college is indeed bright as we anticipate the fruits of various initiatives. We thank all of those who have contributed to our success and look forward to your continuing efforts and support.

Paul Paulus

Alumni Gala

Dr. Wes Wampler is a Distinguished Alumnus from the College of Science

Dr. Wesley Wampler, a member of the College of Science Advisory Council and Vice- President for R&D at Sid Richardson Carbon and Energy Co. in Fort Worth, won the Distinguished Alumni award from the College of Science in 2007. He was presented with the award at the annual gala of the Alumni Association in fall, 2007. Wes received his master's degree in organic chemistry in 1987 and his Ph.D. in applied chemistry in 1995 from UT Arlington. His ground-breaking doctoral research focused on the preparation and characterization of carbon black-conducting polymer composites and the use of these novel materials for environmental remediation.



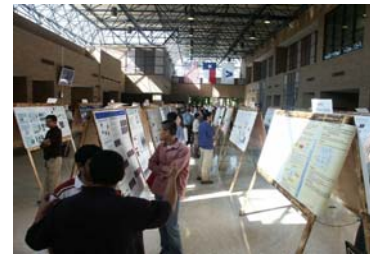
Metroplex Day

Due to the success of the first "UT Metroplex Day," hosted last year by the UT- DFW Initiative for Biomedical and Engineering Sciences, a similar successful event was held this year on February 15th at The University of Texas Southwestern Medical Center at Dallas. Dr. Tom Kodadek from UT Southwestern, Dr. Bruce Gnade from UT Dallas, and Dr. Robert Gatchel from UT Arlington were the organizers of the event this year. The Day was planned to create a greater awareness of interdisciplinary biomedical-related research, as well as to stimulate even greater collaborations among scientists at UT Arlington, UT Dallas and UT Southwestern. The goal was to stimulate ideas about scientific opportunities where biobehavioral and physical sciences overlap. The Presidents of each of the three Institutions were on hand to deliver opening remarks. This was followed by invited talks by faculty and graduate students from all three institutions.

[read more](#)

Research Day Set for October 3, 2008

Plans are underway for a College of Science Research Day on Friday afternoon, October 3rd. The on-campus event will begin at 1:00 p.m. with a poster session featuring both faculty and student research. Breakout sessions and demonstrations will be offered during the poster session. A high-profile speaker will present the plenary session at 3:00, p.m. and the event will conclude with a wine and cheese reception for the participants and guests at which awards will be presented.



[see more photos](#)

Some Recent New Grants

<u>Name</u>	<u>Title</u>	<u>Sponsor</u>	<u>Amount</u>
Tuncay Aktosun and Giak Ambartsoumian	Acoustic Inverse Scattering for Breast Cancer Microcalcification Detection	UTSW	\$298,302
Manfred Cuntz	Analysis and Modeling of Photospheric Flows	NASA	\$142,028
Rasika Dias	Preservation and Disinfection Compounds	Alcon	\$185,000
J.L. Horwitz	Auroral Ionosphere-Magnetosphere Plasma Transport with Alfvén Kinetic Effects	NASA	\$278,000
Chaoqun Liu and Frank Lu Co-PIs with Mechanical and Aerospace Engineering	High-Order LES for Shock –Blunt Body Interaction	Air Force Office of Scientific Research	\$305,000
Paul Paulus and Daniel Levine	Dynamics of idea generation	NSF	\$329,094
Michael Roner	In vivo antiviral activity of Saponins	NIH	\$222,000
Richard Timmons	Functionalizing Surface for Nanoparticle Coating	AeonClad Coatings	\$100,000
Jay Yu	Atlas computing and student exchange	Brookhaven National Labs	\$221,000
Jianzhong Su and Hua Shan Co-PIs with Biomedical Engineering	Computational Optical Tomography for Anti- stroke Therapy	NIH	\$200,000

CREST Earmark

Center for Renewable Energy Science & Technology (CREST) wins earmark funding

Championed by the Hon. Joe Barton (R-Texas), an earmark request from UT Arlington for about one million dollars for energy R&D and infrastructure improvement was approved by the US Congress. More than 25 scientists and engineers in over 7 departments across the Colleges of Science and Engineering are performing collaborative research and development under the umbrella of the recently established Center for Renewable Energy Science and Technology (CREST). This initiative is an opportunity for UT Arlington faculty and students to make a significant contribution to the energy security of our country. In the last 5 years, UT Arlington has invested over \$4M into infrastructure for energy-related research. [read more](#)

Genomics Translational Research Laboratory

A Nursing and Science Collaboration



The only genomics laboratory in the world that is housed in a school of nursing marked its opening with a ribbon cutting ceremony on the 28th of January. The lab is funded by a \$500,000 grant from the UT System and is a collaborative effort with biology and psychology. The research to be conducted in the lab will help healthcare providers understand how complex conditions are transmitted, how drugs interact with gene variants, and how knowledge of genetic makeup enhances the effectiveness of health care and improves care outcomes for consumers.

A Tech Titan In The College of Science

Dr. Richard Timmons, Distinguished Professor in the Department of Chemistry and Biochemistry, was nominated for the Tech Titans Innovator award last year. The Tech Titans awards were launched in 2001 by the Metroplex Technology Business Council (MTBC). Founded in 1994 by MCI, Nortel Networks, Fujitsu, and Rockwell International, MTBC is a comprehensive association for high-tech companies in the Dallas-Fort Worth and North Texas metroplex regions. The basis for Dr. Timmons' prestigious nomination was a portfolio of five patents covering various aspects of using plasma polymerization to functionalize surfaces, including biologically relevant materials. The technology covered by these patents and developed in his laboratory in the Department of Chemistry and Biochemistry was recently licensed by Emergent Technologies Inc., an Austin based venture capital firm. In turn, ETI established a new company, AeonClad Coatings (www.Aeoncladcoatings.com), to market this technology.

[read more](#)



Faculty Research Highlights

Cedric Feschotte and Pawel Michalak of Biology published articles in *Science* and the article by Feschotte was highlighted in *Nature*. [see Nature article](#)

John Fry of Physics worked with the 2007 Noble Laureates in Physics, Peter Grunberg and Albert Fert, on the development of theory related to their experimental work.

Rasika Dias of Chemistry and Biochemistry had his research on scorpionate ligands highlighted on a journal cover of *The European Journal of Inorganic Chemistry*. [see Journal Cover](#)

Tuncay Aktosun of Math traveled to Changwon National University in South Korea to attend the first research day of their College of Science. UT Arlington has developed a strong research and educational relationship with that university which has involved exchanges of faculty, students, plans for joint degree programs and a joint research symposium.

Christopher Kribs-Zaleta traveled to Mexico on behalf of the college to meet students interested in graduate programs in science as part of a collaboration with the Mexican national science foundation, CONACyT.

Chemistry and Biochemistry Chair Sandy Dasgupta has published a paper on the possible impact of the reduction of iodine in the diet of populations world-wide in *Environmental Science and Technology*.

Advisory Council Challenge

The members of the College of Science Advisory Council have challenged the College of Science to double our endowments by November, 2009. Endowments are funds that are kept permanently and invested to provide income for student scholarships or support for faculty members.

At the time of the challenge, the College of Science had 20 named endowment funds. Since then, we have established two new funds: **The Nancy P. and John G. Penson Endowed Professorship in Clinical Health Psychology** and **Laurie and Paul Paulus Endowed Scholarship**. We also have several that are under consideration.

Endowments are incredibly successful mechanisms to recruit, retain, and motivate faculty members and students. They begin at \$10,000 for scholarships and \$100,000 for professorships. We salute those who have established College of Science endowments and ask that anyone interested in receiving further information about this challenge contact our Director of Development Shelly Frank at 817.272.1497 or shellyfrank@uta.edu.

Physics Aviation and Transportation Expo

The UT Arlington Physics department participated in the Fourth Annual Aviation & Transportation Career Expo. Over 4,000 student and teachers attended the expo in an effort to gain career knowledge in the transportation, aviation, math, and science fields. The 11 member physics team was led by Astronomy Lecturer, Nila Veerabathina. The team conducted several demonstrations such as a model of the solar system, a cloud chamber to detect cosmic rays, and a telescope and samples of meteorites. Other activities included using liquid nitrogen to break racquetballs, flower and fruits. Students were given brochures and other materials from the Department of Physics, College of Science and the UT Arlington Planetarium.



[More Photos](#)

Joint Admissions to Medicine Program

The University of Texas at Arlington, University of Texas at Austin, and Texas A&M University led the state in the number of JAMP applicants for admission to Texas medical schools. JAMP, Joint Admission to Medicine Program, is a program created by the Texas Legislature to provide services and support for economically disadvantaged students who wish to pursue a medical education. Accepted students receive scholarships to help pay for pre-medical as well as medical school tuition. Students are also offered mentoring and assistance as they complete their pre-medical studies and apply for medical school. In addition, students will attend summer programs hosted by Texas medical schools [read more](#)

Victory Boxes



For a second year in a row the dean's office staff chose to donate Victory Boxes filled with school supplies and toys to children of Iraq and Afghanistan in lieu of a holiday gift exchange. Project leader Mary Jane Goad sent twenty-one boxes containing children's books, tablets, pencils, pens, markers, rulers, flash cards, bar soap, combs and hair brushes, socks as well as toys and dolls to a select serviceman. In addition to their military duties, service men and women volunteer to make a difference in the societies of these war-torn areas by helping re-establish the most basic educational system for Iraqi and Afghani children. This outreach builds faith and trust with the people toward our soldiers and our country. They greatly appreciate donations received through Victory Boxes, a non-profit charitable organization started by Mary Margaret Halleck of Colleyville, Texas when her step-son, Tom Halleck, was serving in Iraq. When he returned, Ms. Halleck continued to send boxes of needed supplies to other soldiers and women, and since its inauguration in 2004, 13,100 boxes from 40 states have aided the plight of many children and their families. For more information and details on how to send a Victory Box contact Mary Jane Goad (goad@uta.edu) or see website <http://www.victoryboxes.com>.

Planetarium Programs Continue to Expand as 2nd Anniversary Nears

Since assuming the position of Planetarium Director in August, 2007, Marc Rouleau has wasted no time implementing new educational programs. Area scouts can now fulfill the requirements for astronomy related badges in a series of three-hour Saturday workshops. Programs are customized to the specific requirements of the Cub Scout "Astronomy Pin and Belt Loop," the Brownies "Space Explorer-Try It!" badge, the Junior Girl Scouts "Sky Search" badge, and the Boy Scouts "Astronomy" badge. www.uta.edu/planetarium. [read more](#)



New Faculty for Spring 2008



Maeli Melotto
Assistant Professor, Biology Department.

Dr. Melotto came from The Michigan State University, DOE-Plant Research Laboratory. Her research interests lie in the general area of Biology of Plant-Pathogen Interactions. Specifically, her research is focused on the understanding of: (1) the molecular mechanism by which plants defend themselves against bacterial infection and (2) the virulence strategies evolved by bacterial pathogen to overcome plant defenses. Dr. Melotto's current work integrates plant genetics and pathology, genomics and bioinformatics to gain knowledge on the plant innate immune system and bacterial pathogenesis.



Jorge Rodrigues
Assistant Professor, Department of Biology

Dr. Rodrigues also from Michigan State University studies microbes which have a profound effect on our daily lives. The beneficial effects of microbiological products can be felt from our mouths with tasty foods (wine, cheese, and bread) to our pockets with affordable ethanol for running cars. Our capacity to use microorganisms is based on our knowledge of their species and genomic diversities. Currently, there is a gap in this knowledge as little is known about the actual numbers of microbial species and the environmental drivers of their evolution and speciation. The research in his laboratory focuses on understanding the factors leading to the phylogenetic and functional diversity of microorganisms.



Andrew Hunt
Assistant Professor, Earth and Environmental Science

Andrew Hunt came to us from a prior position at the State University of New York, Upstate Medical University, where he was Associate Professor of Pathology and Associate Director of Environmental and Occupational Pathology. He has also served as President of the Society for Environmental Geochemistry and Health. His research interests are in the areas of Toxic effects of inhaled particulate matter, indoor environmental quality, urban geochemistry and health, and pediatric Lead exposure.

Student Highlight

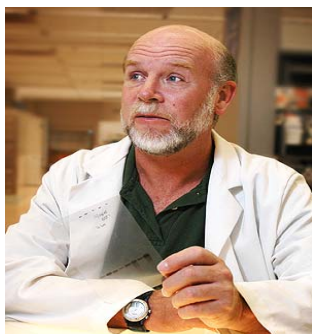
December Biology Grad Making Waves in the Gene Pool

While many of her fellow graduate students are spending their spring break at the beach, Claudia Marquez (BS Biology/Chemistry December '07) will travel to Boston to represent UT Arlington at a genetics sequencing workshop hosted by the prestigious Broad Institute, a collaborative effort of Harvard and MIT. (<http://www.broad.mit.edu/>) After completing her undergraduate degree with honors in December, Marquez opted to continue her studies at the graduate level under the mentorship of Dr. Ellen Pritham, Assistant Professor of Biology. (<http://www.uta.edu/biology/pritham/index.htm>) Their research explores the potentially beneficial effects of mobile genetic elements that can excise themselves and insert themselves into a new location in the genetic sequence. As an undergraduate student, Marquez was selected from over 4,000 candidates to present her research at three national meetings. She also received a SACNAS genome fellowship to support her first year of graduate study.



Alumni Highlight

UTA alumnus, Randy Allen, receives the 2007 Cotton Biotechnology Award.



Randy Allen, a professor of molecular biology in Texas Tech University's Department of Plant and Soil Science, was named the winner of the 2007 Cotton Biotechnology Award at the Cotton Improvement Conference, which was part of this year's Beltwide Cotton Conferences in Nashville. [read more](#)

Staff Highlight



Mary Jane Goad, Assistant to the Dean, was recognized on January 17th with the Outstanding Employee Award. This is a well-deserved award for someone who has served every Dean in the history of the College of Science. She works effectively with the other staff in the college in a wide range of areas relating to the finances of the college. Her extensive knowledge about the procedures and processes keep the college moving smoothly. Mary Jane is also the unofficial historian of the college. She has known all of the faculty and staff who have been part of the college in the past 40 years and has kept track of articles on their various accomplishments.