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Awards & Accomplishments

Three professors from the Rawls College of Business were elected by their peers to serve as co-editors for the Journal of Financial Research. As of Jan. 1, 2012, Jeff Mercer, Drew Winters and Scott Hein will oversee the content and publication of the journal. Southern Finance Association and the Southwestern Finance Association sponsor the journal, and it is devoted to original scholarly research in finance.

A Texas Tech professor was recently named the president of the Society of Environmental Toxicology and Chemistry (SETAC). George Cobb, a professor of environmental toxicology at Texas Tech, will serve as president until November 2011. Cobb was elected by board members in August 2009 and served as the vice president of the organization for a year prior. As president of the North American chapter of the non-profit organization, Cobb will also serve on the SETAC World Council with colleagues from all populated continents.

Shannon Rinaldo, assistant professor in the area of marketing at the Rawls College of Business received funding to develop a new laboratory in the amount of \$55,000 from a private donor. The new laboratory will enhance the quality of the research already being published by faculty in the Rawls College of Business and will facilitate Texas Tech's advancement to Tier One status. The lab will house technology enabling researchers to monitor brain activity, measure physiological reactions to stress, anger, and excitement, and detect where consumers gaze at websites and advertisements. The list of business application is endless but includes the areas of branding, e-commerce, advertising, product evaluation and shopping, word-of-mouth communication and consumer decision-making.

Two graduate students from the Edward E. Whitacre Jr. College of Engineering have been awarded National Defense Science and Engineering Graduate Fellowships. Jonathan Foster and Cameron Hettler were selected by the Department of Defense from nearly 2,600 applicants. Both graduate students were selected for their significant research activities in the Center for Pulsed Power and Power Electronics at Texas Tech.

Bayer CropScience recently announced a \$7.5 million contribution to Texas Tech's Department of Plant and Soil Sciences. The contribution is eligible for a full funding match through the Texas Research Initiative Program (TRIP), therefore creating a \$15 million total contribution to Texas Tech. Texas Tech President Guy Bailey said the contribution will enhance the university's already formidable research and academics in the Department of Plant and Soil Sciences.

The Edward E. Whitacre Jr. College of Engineering was recently the recipient of a \$500,000 donation. Donated by Texas Tech alumni Allen Howard and his wife Linnie from Autumn's Foundation, the contribution will be used to improve the newly named Autumn's Dawn Neuroimaging, Cognition and Engineering (NCIE) Laboratory. Directed by Mary Baker and Michael O'Boyle, the lab promotes the importance of early identification of autism and Asperger's syndrome from a unique perspective by utilizing scientific and engineering methods. More specifically, the funds donated by the Howard's and Autumn's Foundation will supply financial support for lab personnel, provide the opportunity to utilize fMRI equipment, fund travel and attendance at meetings and autism conferences while also seeking out collaborative research opportunities.

The Institute of Electrical and Electronics Engineers Dielectrics and Electrical Insulation Society (IEEE DEIS) recently awarded Texas Tech graduate student George Laity with a \$5,000 fellowship. Laity, whose project aims to create an environment, which allows for accurate measurement of vacuum ultraviolet light, was one of only five graduate students worldwide to receive the fellowship. Laity is currently a graduate student at Texas Tech's Center for Pulsed Power and Power Electronics.

A Texas Tech fabric researcher received an honorary fellowship from The Textile Association (India), the world's largest textile and fiber association. Seshadri Ramkumar, manager of the Nonwovens and Advanced Materials Laboratory at The Institute of Environmental and Human Health was given the honorary fellowship Jan. 28, 2011. The association was founded in 1939, and only 57 people have been honored with the fellowship since 1946. Ramkumar and his team at the Texas Tech Institute of Environmental and Human Health created the Fibertect wipe that can absorb and neutralize gases and liquids that might be used in chemical warfare.

Guy Loneragan, a professor and epidemiologist in the Department of Animal and Food Sciences, and Todd Brashears, an associate professor in the Department of Agricultural Education and Communications, are part of a \$2 million grant from the USDA aimed at improving food safety by managing antibiotic resistance in beef and dairy cattle systems in the United States and Canada. The project is led by H. Morgan Scott, a professor in Kansas State University's Department of Diagnostic Medicine and Pathobiology. The researchers will scientifically evaluate and ultimately provide practical approaches to aid in the control of antibiotic resistance in livestock production. The wipe has been patented and used by the U.S. military and workers in the Gulf Coast following the Deepwater Horizon disaster.

Fibertect®, a decontamination technology developed by researchers at Texas Tech, was one of seven new innovations selected by Cotton Incorporated to show the versatility of the fiber. The products are highlighted in short vignettes on Cotton Incorporated's Cotton Today website. In 2005, Seshadri Ramkumar and his team at The Institute of Environmental and Human Health (TIEHH) leveraged the absorbent capabilities of cotton to create the Fibertect® wipe that can absorb and neutralize gases and liquids that might be used in chemical warfare.

The Edward E. Whitacre Jr. College of Engineering will receive \$48,500 in departmental grants from Exxon Mobil Corp. The funds are part of \$2 million contributed to 81 colleges and universities throughout the country to support various academic programs. The grant allows selected academic departments to allocate the money for various educational purposes including scholarships, field trips, visiting speakers, equipment purchases, student and faculty travel to academic-related activities, and other educational projects. ExxonMobil awards the grants to schools that offer degrees in subjects from which it recruits employees.

Master's student Sarah Dillingham in the atmospheric sciences group of the Department of Geosciences was appointed to the National Membership Committee of the American Meteorological Society (AMS). The committee works to improve the AMS Membership experience by informing members of AMS related conferences, programs, scholarships, fellowships, etc. The committee hosted the first Young Professionals Reception where they could network with other members in the public and private sectors, as well as provide suggestions to our committee on how to best serve their interests.

Alexander Yu. Solynin, professor in the Department of Mathematics and Statistics, served in January 2011, upon invitation by the National Science Foundation, as a panel member for proposal reviews for the Division of Mathematical Sciences.

Eric Bruning, atmospheric sciences group in the Department of Geosciences, received \$52,000 from NOAA's next-generation geostationary satellite program, GOES-R. The funds will be used to support operations and maintenance of the West Texas Lightning Mapping Array (WTLMA). The WTLMA will eventually play a role in validation of the GOES-R Geostationary Lightning Mapper sensor and will contribute to research on the scientific basis for use of total lightning mapping data in operational forecast environments. The purchase of the WTLMA was funded by TTU, and system deployment is presently planned for summer 2011. The 11 stations comprising the array will be located in Lubbock county and the immediate vicinity, and will map lightning channels inside clouds from the New Mexico border to Oklahoma.

Brian Ancell and Christopher Weiss of the atmospheric sciences group in the Department of Geosciences were recently awarded a Collaborative Science, Technology and Applied Research (CSTAR) grant by the National Oceanic and Atmospheric Administration (NOAA). They will conduct research with this grant that focuses on improving forecasts of local, high-impact weather events such as severe convection and winter precipitation through the use of forecast sensitivity analysis and probabilistic forecasting techniques. The project will involve several National Weather Service offices, the Storm Prediction Center and the National Severe Storms Laboratory.

Shon Bacon, Ph.D. student in technical communication and rhetoric in the Department of English is one of 10 recipients of the Scholars for the Dream Travel Award from the Conference on College Composition and Communication (CCCC), a division of the National Council of Teachers of English (NCTE). The award includes a \$750 prize, a reception at the CCCC Convention in Atlanta in April, and a one-year membership in NCTE and CCCC. The Conference on College Composition and Communication sponsors the Scholars for the Dream Awards to encourage scholarship by historically underrepresented groups. These groups include African Americans, Asian Americans, Mexican Americans, Puerto Ricans and other Latino and Latina Americans, and American Indians – persons whose presence and whose contributions are central to the full realization of the profession's goals. The Awards Selection Committee considers originality of the scholar's research, significance of pedagogical or theoretical contributions to the field, and potential for larger, subsequent projects.

Joe Gantt was nominated as the incoming chair of the National Parliamentary Debate's division of the National Communication Association at the recent conference in San Francisco. Joe will serve until 2013 as the division chair.

Seongeun Jin, Ph.D. student in the Department of English is a recipient of the \$10,000 Soongsil Honor Scholarship for the Gifted Student.

Stephanie Eckroth, Ph.D. student in book history in the Department of English has been named the 2011 Pantzer New Scholar by the Bibliographical Association of America. The Pantzer New Scholar is named in honor of the bibliographer Katherine F. Pantzer (1930-2005), best known for her work on the revised Short-Title Catalogue of Books Printed in England, Scotland and Ireland, and of English Books Printed Abroad, 1475-1640. The award will be conferred at the Annual Meeting of the Bibliographical Society in January, where Ms. Eckroth will give a lecture – "Walter Scott and the Authoress: Anonymity and the Nineteenth Century Novel Market" – in which she correlates the cost of a novel to the presented gender of the author between 1790 and 1823 to argue that Scott's anonymity was an economic response to the gendered nature of the nineteenth century novel market.

Bill Poirier has been selected for funding through the Theory, Models and Computational Methods program of the National Science Foundation. The grant, for \$468,715, is entitled "Massive Parallelization of Exact Quantum Dynamics Calculations: Computing (ro)vibrational states for real molecular applications." This project uses massively parallel high performance computers to enable exact quantum dynamical rovibrational spectroscopy calculations for larger molecular applications than have heretofore been realized. Initial calculations will be performed on the soon-to-be-completed TTU 1200-core Chemistry Computation Cluster (separate NSF funding), with possible later migration to much larger NSF facilities (Kraken, Blue Waters). Software codes developed as part of this project will be made available to the chemical dynamics community.

Bijoy Ghosh, Dick and Martha Brooks Endowed Professor in the Department of Mathematics and Statistics, has been notified by the NSF Division of Electrical, Communications and Cyber Systems that his proposal, "Head Eye Coordination, Motion Detection and Feedback Control with Counters" has been funded (Oct. 2010 – Sept. 2013, \$345,560). The proposal deals with orientation control of the human head/eye combination. The goal is to obtain the tracking signals to the combined head eye pair for the purpose of gaze fixation and tracking. The focus is to study dynamics and control of eye/head orientation; statistical modeling of the retinal signals conditioned on the target motion followed by target motion estimation and event based control implemented as a dynamical system with counters.

Dimitri Pappas, assistant professor in the Department of Chemistry and Biochemistry, has received a three-year R21 grant from the National Institutes of Health entitled "Rapid Single Molecule Detection System for Intracellular Protease Activity." The grant is for \$522,329 and focuses on development of new cell analysis systems and probes.

Alex Solynin, professor in the Department of Mathematics and Statistics, has been notified by the NSF Division of Mathematical Sciences that his proposal, "Topics in extremal problems in complex analysis and potential theory," has been funded (Sept. 2010 – Aug. 2011, \$44,000). The goal of the project is to provide new theoretical insight regarding deep extremal problems in complex analysis and potential theory. Particular emphasis will be placed on the method of symmetrization and the method of quadratic differentials, new versions of which were developed by Professor Solynin.

Jonathan E. Thompson, associate professor in the Department of Chemistry and Biochemistry, has received an award from the National Science Foundation for the project, "Development of a Near-UV Aerosol Albedometer." The award is for two years in the amount \$355,654.

Peter Westfall, James and Marguerite Niver and Paul Whitfield Horn Professor of Statistics, co-director CAABI, Area of ISQS Jerry S. Rawls College of Business Texas Tech University, has been awarded a grant from the National Institute of Health for \$334,013 as a co-PI for the project titled, "Novel methods for the analysis of gene signaling pathways with applications in ob."

NSF Grant awarded to Daan Liang to study economic resilience of communities after hurricanes: The project titled, "Development of a quantitative model for measuring regional economic resilience to hurricanes" was awarded by the NSF to PI Liang on June 29 and is effective Sept. 1. The research project is slated to receive \$280,000 in research funds. Co PIs on the project include Bradley Ewing and Kishor Mehta.

WISE Faculty member Xinzhong Chen was recently awarded a grant from the National Science Foundation for his study titled, "Reliability based predictions of extreme and fatigue responses of utility scale wind turbines through advanced modeling and simulations." The grant totaled \$240,474.

Texas Tech University has received both state and federal money to help investigate and resolve key scientific and technology issues facing the wind power industry. In 2010, the Department of Energy announced more

than \$5 million in total funding to support five wind energy-related projects. Texas Tech is included in two of the new projects. One project will improve short-term wind forecasting, which will accelerate the use of wind power in electricity transmission networks by allowing utilities and grid operators to more accurately forecast when and where electricity will be generated from wind power. Another project aims to boost the speed and scale of mid-size wind turbine technology development and deployment. Texas Tech, along with the National Institute for Renewable Energy (NIRE), will receive \$8.4 million from the Texas Emerging Technology Fund. Texas Tech and its wind research organizations will receive \$6.4 million of the award. NIRE will receive the remaining \$2 million in support of its plans to design, construct and operate research wind farms, selling the power generated in the commercial marketplace to fund the non-profit National Wind Resource Center.

The CH Foundation awarded the College of Architecture \$20,000 to assist in the establishment of the downtown Design Center (UrbanTech). David Driskill, associate professor, and Kathy Johnson, director of development, submitted the winning proposal. The Design Center will facilitate the Urban Design Research Studio. Directed by Driskill, the studio is focused on the opportunities and visions for the redevelopment of urban environments, and specifically, central Lubbock. The Design Center will begin operation in the downtown area fall 2010. The college also received \$30,000 from the Helen Jones Foundation to support graduate fellowships. The donation will provide 10 scholarships of \$3,000 each to Master of Science students for the 2011-2012 fiscal year. Johnson, along with Gary W. Smith, associate dean for research and finance, submitted the winning proposal.

The National Science Foundation awarded nearly \$770,000 in grants to three Texas Tech professors. Aranya Chakraborty, assistant professor in electrical and computer engineering, received nearly \$300,000 for research on complicated behavior of large power grids during critical disturbances; John Schroeder, associate professor of atmospheric science, received about \$280,000 for research on the relationship between extreme thunderstorm winds and engineering design; and Ronald Hedden, associate professor in chemical engineering, received \$190,000 for research on elasticity of polymers. Research focuses on the psychosocial aspects of libraries, information technology and information seeking.

Robert W. Shaw, acting chairman of the Department of Chemistry and Biochemistry, helped develop patented technology called an aptamer that makes certain existing antibiotics viable against antibiotic-resistant bacteria. The Office of Technology Commercialization announced in June the signing of an exclusive worldwide license agreement with RI Scientific LLC for the development and commercialization of the metallo-beta-lactamase inhibitors, short chains of nucleic acid that have demonstrated the ability to eliminate bacterial resistance to antibiotics.

Jonathan Foster, a graduate engineering student from Big Spring, and Cameron Hettler, a graduate engineering student from Lubbock, were awarded National Defense Science and Engineering Graduate Fellowships by the Department of Defense.

Lauri Anderson, a graduate student in creative writing, was recently named the winner of NPRs Three-Minute Fiction Round 6: Laughing and Crying. The rules of the competition were to submit a short story that could be read in less than three minutes, and at some point within the piece, one character had to tell a joke and one character had to cry. Anderson's story "A Saint and a Criminal," was chosen among 4,000 other short stories submitted to the competition. [Listen to the story read here.](#)

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