



BREEZE BULLETIN

Office of University Research (<http://research.latech.edu>)

The measure of a man's real character is what he would do if he knew he never would be found out.

Thomas B. Macaulay
(1800-1859, American Essayist and Historian)

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LATECH GRANTWRITING WORKSHOPS

Below is a list of workshops sponsored by the Office of University Research designed to assist faculty in successfully writing and managing grants. Seating is limited. Please contact Beth Free at 257-5075 or bfree@latech.edu in the Office of University Research to reserve a seat:

- **5/21/08 Rm 1535 Wyly Twr. 1:30-2:30 pm** Fall Funding Opportunities With The Board of Regents.
- **6/11/08 Rm 1535 Wyly Twr. 1:30-2:30** BoR RCS/ITRS Support Program Workshop.
- **6/25/08 Rm 1535 Wyly Twr. 1:30-2:30pm** BoR Enhancement Support Program Workshop
- **7/9/08 Rm. 1535 Wyly Twr. 1:30-2:30pm** Writing Winning Proposals

These and other workshops are scheduled throughout the year. If you cannot attend during the dates and times when scheduled, please contact Beth Free to schedule a more convenient time. To view a more complete list of in-house workshops, go to:

http://research.latech.edu/resources/resource_links/louisiana_tech_workshops.

Louisiana Board of Regents Fall Support Fund Announcements

Fall is always hectic at Louisiana Tech so it's never too early to start planning for the Board of Regents Fall Support Fund programs. Below is a list of the programs (based on last year's announcements) and eligible disciplines for FY 08-09. Contact Beth Free in the Louisiana Tech Office of University Research (257-5075 or bfree@latech.edu) for a list of eligible sub-disciplines. Potential applicants should note that the **topic** of the proposal should be used to determine eligibility, not the academic training of the potential applicants:

A. Traditional and Undergraduate Enhancement Program: Biological Sciences, Computer & Information Sciences, Engineering B (Industrial, Materials, Mechanical, etc.), Humanities and Social Sciences.

B. Two-Year Institutions Enhancement Program: N/A

C. Research and Development Program (Research Competitive Subprogram/RCS & Industrial Ties Research Subprogram/ITRS): Chemistry, Health and Medical Sciences, Engineering B (Industrial, Materials, Mechanical, etc.) **Disciplines eligible every year:** Biological Sciences, Computer and Information Sciences, Earth/Environmental Sciences.

D. ATLAS Program: All projects in Art, Humanities, and Social Sciences are eligible.

E. Graduate Fellows Program: Agriculture, Business, Education (including Literacy), Mathematics. **Disciplines eligible every year:** Biological Sciences, Chemistry, Computer and Information Sciences, Earth/Environmental Sciences, Engineering A and B, Health/Medical Sciences, Physics/Astronomy.

F. Graduate Fellowships to Promote Diversity Program: All academic departments offering the Ph.D. degree are eligible for support through this program, though applications must be made through the institution's graduate school or governing unit for graduate education. Preference will be given to applicants presenting plans to provide fellowships to science, technology, mathematics and engineering disciplines. The program will not provide fellowship support to students pursuing professional degrees such as the Ed.D, M.D., D.D.S., J.D., and D.V.M.

There are detailed instructions for each of the programs above. To read and/or download the full request for proposals, go to http://research.latech.edu/resources/funding_opportunities. **Reminder: these are last year's rfp's and are listed to familiarize applicants with the available programs. The new 08-09 rfp's will be posted mid to late summer, 2008.** If you have questions or need assistance, contact Beth Free, Pre-Award Coordinator, at 257-5075 or via e-mail: bfree@latech.edu.

NEW GRANTS AWARDED

PI/Co-PI	Title	Funding Agency	\$ Awarded
Khodadad Varahramyan	<i>Collaborative Research for the Design & Development of Micro/Nano Scale Devices</i>	NSF/Tulane	111,244
Cardenas/Eklund/Kanno	<i>Electrokinetic Repair of Thermal & Mechanical Damage in Concrete</i>	Entergy	73,529
Glenn Beer	<i>Let's Get Physical - A Physical Science Camp for Blind Students</i>	La. Center for the Blind	2,300
Chester Wilson	<i>Space Capsule Power Generation/Raley</i>	Nasa/LaSpace	4,000
David Anderson	<i>Shreveport Sounds in Black and White . . .</i>	NEH	5726
Jan. 2008 Total			\$196,799
Gullatt/Schillenger	<i>Value-Added Qualitative Research Team, Carnegie/CITAL Subgrants</i>	BoR	25,500
Jenna Carpenter	<i>Women in Engineering Knowledge Center</i>	NSF	79,807
Lusby/Overby	<i>The ARK Project for Lincoln Parish</i>	La. Campus Compact	6,500
Allouche/Hall/Sterling	<i>Experimental Evaluation of Cip Lining Systems for High Temperature Applications</i>	NY Dept. of Design & Construction	157,380
Garland/Fife/Guin/Payne	<i>Promise of Nursing for Louisiana Grant Request/METI PNCI</i>	La. Nurses Foundation	25,000
Andrei Paun	<i>Simulation of Apoptosis With a New Discrete Method</i>	NIH through LSU	50,000
Chester Wilson	<i>Micro-Propulsion Systems, Minority Research Experience/</i>	Nasa/LaSPACE	4,000
Sterling/Allouche	<i>Rehabilitation of Wastewater Collection and Water Distribution System</i>	EPA thru Battelle	402,065
Feb. 2008 Total			\$900,252
Chester Wilson	<i>Anti-tamper Explosive Packaging for Missile Defense Agency</i>	DOD/Radiance	15,000
Chad O'Neal	<i>Volume Protection Using Anti-Tamper Technology</i>	DOD/Radiance	15,000
William Green	<i>Study of Beta-Carotene Supplementation of Horses</i>	Stuart Products	2,595
Ray Sterling	<i>Role of Buried Utilities in Resiliency and Sustainability of Towns (RoBUST)</i>	NSF/BoR	20,000
March 2008 Total			\$52,595
Sidney Sit	<i>Modification of a Novel Acrylate-based Corneal Tissue Engineered Scaffold to Promote Epithelialization</i>	NSF/BoR Pfund	10,000
Pedro Derosa	<i>A Realistic Model for Charge Transport in Conductive Polymers</i>	NSF/BoR Pfund	10,000
Glenn Beer	<i>LaCAMPS Year 4</i>	USDE/LaGEARUP	206,108
Beer/Basinger/Dornier	<i>LaTech/LA GEAR UP Consolidated Summer Camp Experiences for 2008</i>	USDE/LaGEARUP	363,869
Long Que	<i>Plasmonics Substrates Fabricated Nonlithographically for Fluorescence and Raman Signal Enhancement</i>	NSF/BoR Pfund	10,000
Erez Allouche	<i>Testing of an All-Plastic 12 Inch Terrabrute Pipe Sample</i>	IPEX, Inc.	4,800
Yuri Voznyanov	<i>Correction of Mutations Using Tailor-made Recombinases</i>	NSF/BoR Pfund	10,000
Guin/Fife/Payne/Brown	<i>Integrating Community Resources for Disaster Preparedness in Lincoln Parish</i>	CNCS/Learn & Serve	24,300
April 2008 Total			\$639,078
			YTD 14,751,732



(Want to see your name on the list of 'New Grants Awarded'? Check out OUR's page of funding opportunities at http://research.latech.edu/resources/funding_opportunities.)

DR. TOMMY GRAFTON, FACULTY AND STAFF PASS CRASH TEST AT FARMERVILLE HIGH!!

(The article below is reprinted with permission from the Farmerville Gazette. The mock exercise was sponsored in part by The Louisiana Highway Safety Commission and coordinated by the North Central Alliance Partners in Prevention Coalition. Congratulations to Dr. Tommy Grafton and his faculty and staff on a job well done!!)

Mock crash drives home point

Exercise designed to prevent teens from drinking and driving

Jennifer Kilcrease, Staff Writer, Farmerville Gazette

04-30-2008

Students at Farmerville High School got shocked into the reality of an alcohol related automobile accident last Thursday morning.

The skit that was written by FHS students depicted a teenager who took the role as a designated driver following the prom because he had consumed the lesser amount of alcohol than his friends.

This decision turned out to be a tragic mistake, which took the lives of two of the 11 students involved. In the mock crash, which took place on Anthony Street by the FHS band room, two vehicles were involved in a head-on collision at approximately 35 miles per hour.

The scene opened up with a horrific crashing sound, then tarps were removed to display the mangled vehicles and passengers with extensive injuries. The victims were screaming in pain and confused.

A passerby who drove upon the scene called 911 for help. The Farmerville Police Department was dispatched to the scene. Upon arriving they began processing the scene and called Pafford Ambulance Service and the Farmerville Volunteer Fire Department for extra assistance.

"This is the first year we've done an organized thing like that," Union parish Sheriff Bob Buckley said. "I really like the idea of it and hope we can do it again."

The heavily coordinated and life-like mock crash was done in hopes of making high school students realize the consequences of drinking and driving.

"The sad part is that it has happened in reality around here more than we wanted it to where a young person from an accident was killed in a car wreck by drinking and driving," Buckley said.

The mock crash exercise, which lasted approximately two hours, was designed to deliver maximum impact to the students who were in attendance.

"I thought it was a good demonstration," Farmerville High School student Josh Harris said. "It was very realistic. It upset me to see my friend Caleb in that condition and I'm just thankful that nothing like this happened to anyone I know on prom night."

According to the National Highway Traffic Safety Administration, car wrecks are the leading cause of death for teens.

"The best impact would be that if we can influence just one child to not drink during prom season, than this would be a success," FHS librarian Bridget Fulton said. "I'm saddened to know if this could actually happen it would affect everyone here, teachers, friends and family. It could have been real. The 'what if' saddened me."

And if students think it can't happen to them, there is a real-life example of the consequences of drinking and driving in the Union Parish Detention Center.

"We've got a guy in the detention center who's 21," Buckley said. "He had always been the designated driver and never drank. One night he and some friends went out and got in a wreck. His best friend was killed and others were hurt. He's doing 12 years on negligent homicide. He will tell you he never wish wished (alcohol) had touched his lips. Not only was his best friend killed, but 12 years of his life is gone."

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PROPOSALS SUBMITTED

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
08-172	Cardenas, Henry	Eklund/ Kanno.	Electrokinetic Repair of Thermal & Mechanical Damage in Concrete	Entergy	73,529.00
08-173	Beer, Glenn	Deese, Bill	The Best of RIPPLE	LaSIP/BoR	238,267
08-174	Beer, Glenn		Lets' Get Physical - A Physical Science Camp for Blind Students	Louisiana Center for the Blind	2,300.00
08-175	Yule, Jeffrey	Schuler/ Hunt	Development of a Freshwater Pond Research Facility to Evaluate the Effects of Oil Brine Contamination	OSRADP	172,038.00
08-176	Wilson, Chester		Networked Rocket Bullet Shooting Robots for Spec. Ops. Com. Mission Specific Demonstration	Georgia Nanofab	150,000
08-177	Schuler, Lance	Lydy, Michael	Development of an Effects-based Bioaccumulation Test: Assessing the Utility of a Challenge Exposure to Determine Bioaccumulation from Oiled Sediments	OSRADP	93,523
08-178	Allouche, Erez		A State Model for Field Monitoring Education in Civil and Environmental Engineering	NSF	60,828
08-179	Wang, Jay		Estimating Setup of Piles Driven into Louisiana Clayey Soils	LTRC	124,986
08-180	Leonard, Pauline	Beer, Glenn	Achieving Widespread Dissemination of EPAS Professional Development Through the Addition of an On-Line Course at Louisiana Tech	BoR	21,361
08-181	Wilson, Chester		Anti-tamper Explosive Packaging for Missile Defense Agency	Radiance/Missile Defense Agency	15,000
08-182	Chiu, Alan	DeCoster, Mark	Stochastic Resonance of Theta Rhythm in Hippocampal Networks	NIH	129,020
08-183	Karim, Md	Phoha/ Selmic	MRI: Development of an Instrument for Secure Cyberspace Sensor	NSF	741,515
08-184	Walker, Harrell		SG-3 Shelf-Life Evaluation	Aster Bio	6,881
08-185	Green, William		Study of Beta-Carotene Supplementation of Horses	Stuart Products	2,595
08-186	Kanno, Jinko	Selmic, Rastko	Detecting Holes In Sensor Network Coverage Without GPS	BoR/Pfund	10,000
08-187	Gold, Scott	Mills, David	3D Nanostructures for Cell Culture	BoR/Pfund	10,000
08-188	Que, Long		Plasmonics Substrates Fabricated Nonlithographically for Fluorescence and Raman Signal Enhancement	BoR/Pfund	10,000
08-189	Davis, Despina		Fabrication & Testing of Magnetic Nanowire Based Sensors	BoR/Pfund	10,000
08-190	Mainardi, Daniela		Kinetics of Methonal Production Catalyzed by Methanol Dehydrogenase After the Photochemical Conversion of CO2 to Formate	BoR/Pfund	10,000
08-191	Selmic, Sandra		Numerical and Experimental Study of Conjugated Polymer Photodetectors	BoR/Pfund	10,000
08-192	Lusby, Aaron		Rural Dvelopment Certification Program	USDA	177,240

PROPOSALS SUBMITTED (CONT'D FROM PAGE 4 . . .)

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
08-193	Ji, Frank	Varahramyan, Kody	Inductive Microcantilever Biosensing Based on Conformational Change of Proteins	NSF	420,976
08-194	Voziyanov, Yuri		Correction of Mutations Using Tailor-made Recombinases	BoR/Pfund	10,000
08-195	Derosa, Pedro		A Realistic Model for Charge Transport in Conductive Polymers	BoR/Pund	10,000
08-196	Lvov, Yuri		Clay Nanotubes for Controlled Release of Anticorrosion Agents	BoR/Pfund	10,000
08-197	Sit, Sidney		Modification of a Novel Acrylate-based Corneal Tissue . . .	BoR/Pfund	10,000
08-198	Murimi, Mary		DISPATCH	NIH	748,693
08-199	O'Neal, Patrick		Drug Delivery Nanoparticles for Improved Cancer Treatment	BoR/Pfund	10,000
08-200	Chiu, Alan		Enhance Neuronal Synchronization Through Multielectrode Stimulation in Theta and Gamma Range	BoR/Pfund	10,000
08-201	Eklund, Sven		Synthesis and Spectroscopic Characterization of Tantalum and Tungsten Fluorides ...	BoR/Pfund	10,000
08-202	Morrow, Timothy		Development of Ionic Liquid Molecular Models for the Study of Their Applications in Electrochemical Devices	BoR/Pfund	10,000
08-203	Que, Long		MEMS-based Optical Antenna Near-field Probes for Nanoscale Imaging and Spectroscopy	NSF	286,347
08-204	Choi, Ben		SCR-EHS: Building Multi-valued and Fuzzy Logic Computers	NSF	211,256
08-205	Lvov, Yuri	Varahramyan, Kody	Nano-Micro-Integration for Cellulose Based Materials and Devices	NSF	340,000
08-206	Sethi, Perna		Evaluation of Image Fusion Techniques for Enhanced Fluorescein Angiography in Diabetic Retinopathy	LBRN	13,872
08-207	Grafton, Tommy	Boyd, Rhonda	Project Northland	Office for Addictive Disorders	193,555
08-208	Ji, Frank		Conformational Change of Protein in Ionic Liquids for Sensing Applications	NIH	100,000
08-209	Beer, Glenn	Talton/Deese/Madden	Ouachita Parish/LaTech Math & Science Partnership	La. Dept. of Edu.	53,964
08-210	Sterling, Ray		Role of Buried Utilities in Resiliency and Sustainability of Towns (RoBUST)	BoR/La ESPCoR	20,000
08-211	Wasiuddin, Nazimuddin		Effects of Temperature on Surface Free Energy of Aggregates . . .	NSF	66,752
08-212	Davis, Despina		Nano Thermoelectric Coolers Electrodeposition	BoR	28,951

(Cont'd on page 6)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 5 . . .)

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
08-213	Eklund, Sven	O'Neal, Chad	Electrochemical and Spectroscopic Studies of the Electrodeposition of Refractory Metals in Room Temperature Ionic Liquids	NSF	366,645
08-214	Cathey, Ron	Merrit/Burt	NCAA Choices: Alcohol Education	NCAA	30,000
08-215	Mainardi, Daniela	Derosa, Pedro	Methanol Dehydrogenase-Catalyzed Sustainable Methanol Production from Atmospheric Methane: A Multi-Scale Modeling Approach	NSF	478,030
08-216	Grafton, Tommy	Smith, Addie	North Central Alliance Partners in Prevention	SAMHSA	99,960
08-217	Wick, Collin	Morrow, Timothy	Computational Study and Design of Battery & Fuel Cell Electrolytes with Ionic Liquids	NSF	325,327
08-218	Smith, Rebecca	Hill/Beer/Leonard	Comprehensive School Reform Project for LaGEARUP	BoR/LaSIP	373,918
08-219	Liu, Don	Lvov, Yuri	High Performance Computing & Experiments on Nanoscale Interfacial Transport Phenomenon for Complex Fluids	NSF	379,091
08-220	Eklund, Sven	Wick, Colin	Asymmetric Catalytic Hydrogenation Design and Modeling at Chiral Modified Pt Surfaces	NSF	318,756
08-221	Morrow, Timothy		Synthesis of Nanoporous Materials in Ionic Liquids: A Fundamental Study of the Solvent's Role	NSF	25,242
08-222	Gold, Scott	Derosa, Pedro	Proton Conduction in Ceramic Superacid Proton Exchange Membranes	NSF	349,096
08-223	Wilson, Chester		Radiation Detectors Fellowship	DOD	224,164
08-224	Leonard, Pauline	Hill/Smith/Beer	Louisiana Tech University EPAS Train the Trainer Project	LaSIP	10,706
08-225	Paun, Andrei	DeCoster, Mark	Computability of Neurons and Membrane Systems	NSF	326,953
08-226	O'Neal, Patrick	Lvov, Yuri	Green Tea & Pomegranate Polyphenols in Combination to Target Hormone Resistant Prostate Tumor...	Prostate Cancer Foundation	443,714
08-227	Gold, Scott		Alternative Purrole Based Fuel Cell Catalyst Development	LaSPACE	10,000
08-228	Gold, Scott		Development of a Nanostructured Ammonia Borane Hydrogen Generator (Prejean)	LaSPACE	5,000
08-229	Sit, Sidney		Modification of a Corneal Tissue Engineered Scaffold to Modulate Responses of Epithelial Cell	LaSPACE	10,000
08-230	Ji, Frank		Microcantilever Sensors for In-Situ Subsurface Characterization	DOE	500,000
08-231	Eklund, Sven		Improvement of Miniature Biofuel Cells Using CNT's as Electron Transfer Mediators	LaSPACE	10,000
08-232	O'Neal, Patrick		Physician-Free Nanoparticle Based Drug Delivery for Space Related Applications	LaSPACE	5,000

PROPOSALS SUBMITTED (CONT'D FROM PAGE 6 . . .)

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
08-233	Cicciarella, Charles		A Course For Campus Emergency Preparedness Information	Campus Compact	4,819
08-234	Shipp, Michael		Training in Assistive Technology	LRS	108,474
08-235	Nelson, James		Project Capstone: Louisiana Tech University's Math and Science Partnership	NSF	10,463,713
08-236	Karim, Md	Phoha, Vir	Hackers' Profile Based Game Theoretic Cyber Policing Strategies	NSF	189,694
08-237	Ji, Frank		Self-Assembly of Well-Defined Nanostructures by Hydrogen Bonding in the Gas Phase	ACS Petroleum Research Fund	100,000
08-238	Saber, Aziz		Field Investigation on Impact of Sugarcane Truckloads on Louisiana State Bridges	LTRC	253,831
08-239	Grafton, Tommy	Boyd, Rhonda	Union Parish Partners in Prevention	The Governor's Safe & Drug-Free Schools & Communities Program	27,983
08-240	Walker, Harrell		Lytic Agents for Algae	XL Tech Group	192,036
08-241	Wilson, Chester	Forrest, Scott	Flight Testing of Micro Scale Space Radiation Detectors	LaSPACE	19,993
08-242	Beer, Glenn		Experiment Gallery-Activity Station Support	La. Space Grant Consortium	14,248
08-243	Allouche, Erez		Applications of Geopolymer Concrete (Envirocrete) in Pre-Cast Components and Field Construction	Entergy Nuclear	59,207
08-244	Dobbins, Tabetha		Application of 30nm Resolution X-Ray Tomography to H2 Storage Research	ACS Petroleum Research Fund	50,010
08-245	Rea, Kenneth	Lusby/Kennedy	Rural Development Centers, LA	USDA CREES	104,637
08-246	Napper, Stanley		Biomedical Engineering Bionanosystems Research at Louisiana Tech University	DOE	1,435,000
08-247	Crump, Kenny		Understanding Exposure-Response Variation to Superfund Chemicals	NIH	91,755
08-248	Leangsuksun, Box	Paun, Mihaela	CSR-PSCE DMSS: Collaborative Research: Scalable Resilience in Large-Scale Systems	NSF	450,000
08-249	Sterling, Ray		EFRI RESIN: The Role of Buried Utilities in the Resiliency and Sustainability of Towns (RoBUST)	NSF	200,000
08-250	Beer, Glenn		Building Capacity of SciTEC to Broaden the Impact of it's Educational Outreach Mission	USEdu	335,043
08-251	Cicciarella, Charles	Reeves, Smiley	Ready Campus First Aid & CPR	Campus Compact	2,498
08-252	Allouche, Erez	Baumert, Mike	Testing of an All-Plastic 12 Inch Terabrute Pipe Sample	IPEX, Inc.	4800

PROPOSALS SUBMITTED (CONT'D FROM PAGE 7 . . .)

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
08-253	Choi, Ben		Building Multi-Valued Logic Computers and Fuzzy Computers	NSF	321,262.00
08-254	DeCoster, Mark	Lvov, Yuri	IGERT: Program in Multi-Scale Integrator for Biomimetic Systems (MIBS)	NSF	(white paper)
08-255	Grafton, Tommy	Boyd, Rhonda	Claiborne Parish Partners in Prevention	Region VII OAD	51,104
08-256	Mack, Taylor	Webre, Stephen	A Month with the Maya: A Lecture Series	La. Endowment/ Humanities	5,977

ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS

Chester Wilson, AVOYELLES RENEWABLE FUELS, INC. \$517;

Chester Wilson, GRADUATE STUDENT RESEARCH ASSISTANCE FOR THERESA A. WILLIAMS , NASA/LaSPACE \$4,000;

Chester Wilson, GRADUATE STUDENT RESEARCH ASSISTANCE FOR HEATH A. BERRY, NASA/LaSPACE \$4,000;

David Mills, CONTINUING GK-12, CREATING CONNECTIONS: ADVANCING KNOWLEDGE, LEARNING AND STEM CAREER OPPORTUNITIES FOR RURAL LOUISIANA, NSF \$547,606;

Erez Allouche, UTILIZATION OF ULTRA-WIDEBAND RADIATION AS A UTILITY DETECTION SYSTEM AHEAD OF AN EXCAVATION BUCKET IN SOIL, Deere and Company \$196,498;

Glenn Beer, LOUISIANA GEAR UP EXPLORER CAMPS 2007, US Dept. of Education/LaSIP \$16,201.

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Recent Agency Announcements

NSF/EPSCOR Call for White Papers RII Track II - Due June 19, 2008. Contact Beth Free for full rfp (bfree@latech.edu) or go to OUR's website for new rfp's (copy and paste) http://research.latech.edu/resources/funding_opportunities/newly_posted under 'State'.

TECH will be closed, Monday, May 26 in observance of Memorial Day. Have a safe and fun summer!

