

Louisiana Tech University



BREEZE BULLETIN

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

Champions know that success is inevitable, that there is no such thing as failure, only feedback. They know that the best way to forecast the future is to create it.

Michael J. Gelb

(American peak performance expert, author, trainer)

TABLE OF CONTENTS

New Grants Awarded 2 & 7
Proposals Submitted 3-7

2014-15 TECH FRINGE RATES

The 2014-15 Tech Fringe Rates have not yet been posted. Please use last year's rates until further notice:

Faculty/Unclassified/Post Doc: 46.47%
Civil Service: 51.27%
Temporary/Part-time: 9.96%
DROP: 19.97%

Click the following link to download a pdf chart: http://research.latech.edu/files/documents/2013-14_fringe_benefit_rates.pdf.

IN-HOUSE WORKSHOPS

For a full list and descriptions of in-house workshops, go to http://research.latech.edu/resources/training_workshops/latech_workshops.

OUR RESOURCES

Current LaTech routing forms, F&A Waivers, budget templates and contract forms, can be downloaded from this link: http://research.latech.edu/resources/forms_downloads.



"Save him a heap more work for ME around here since those Biologists got granted research time on the ol' Supercollider..."

2014-15 BoRSF RFP Announcements

The Board of Regents Support Fund Requests for Proposals and related downloads are now accessible on the University Research website (http://research.latech.edu/resources/funding_opportunities/louisiana_board_of_regents/). Please note Tech's internal deadlines in conjunction with the BoR LOGAN deadlines if you are planning to submit a proposal to any of the funding opportunities. Notices of Intent are mandatory in the RCS/ITRS and ATLAS programs. Failure to submit a Notice of Intent will prevent submission of a proposal.

Eligible disciplines this year are:

Traditional & Undergraduate Enhancements: Biological Sciences, Computer & Information Sciences, Engineering B, Humanities and Social Sciences.

RCS: Agricultural Sciences, Biological Sciences, Computer & Information Sciences, Earth/Environmental Sciences, Engineering A, Physics/Astronomy, Social Sciences.

ITRS: Does not have discipline rotations (see rfp for Target Areas).

ATLAS: Does not have discipline rotations but is limited to Arts, Humanities and Social Sciences.

**All BoR Support Fund proposals must be submitted in the online LOGAN system: <https://web.laregents.org/logan/index.pl>. To register, click on the PI log-in box and follow the prompts to register as a new user.

New OUR Funding Opportunities Website with TIMELINE!!

Thanks to the VP Office of University Research, researchers can now download a timeline of upcoming funding opportunities in excel or as a picture from OUR's new funding opportunity website. Click on this link http://research.latech.edu/resources/funding_opportunities/requests_for_proposals to download and find funding for your next research project!

NEW GRANTS AWARDED

PI/Co-PI	Title	Funding Agency	\$ Awarded
Heath Tims	<i>STEM-Discovery</i>	NSF/BoR/EPSCoR	708,415
Yuri Lvov	<i>Nanoparticles Toxicity Tests With 'Cyborg' Cells and Model Microworms</i>	NSF/CRDF	15,000
April 2014		Total:	\$723,415
Tanya Sims	<i>NELA Komen: Nursing and Service Learning Partnerships</i>	Susan G. Komen	1,000
James Dickson	<i>Additional Support for McIntire-Stennis Project LAZ00076: Bird Communities of Lincoln Parish Park and Effects of Timber Harvest & Hearing Amplification on Birds and Bird Detections</i>	GmbH	5,000
Sumeet Dua	<i>Research-Intensive Internship in Cyber Engineering</i>	DHS/CIC	240,000
Jeremy Mhire	<i>Cyber Discovery 2.0</i>	DHS/CIC	164,910
Erez Allouche	<i>Tensile Testing of Polyurea Specimen Subjected to 700C and-400C Temperature</i>	Century Link	2,800
Rastko Selmic	<i>System for Classification of 3D Dynamic Hand Gestures</i>	BoR	40,576
P.Arumugam	<i>Development of Carbon Nanotube Based Multifunctional Electrochemical Probes for Single Cell Analysis</i>	BoR	29,986
Erez Allouche	<i>A Semi-Empirical Approach for Calculating the Optimal Thickness of Geospray for the Rehabilitation of Culvert and Drainage Structures</i>	Milliken Infrastructure	48,800
Dianne Madden	<i>Project Conserve the Wetlands</i>	LWF/LEEP	2,494
Erez Allouche	<i>Experimental Investigation of Selected Pipe-Soil Phenomena During and in the Aftermath of HDD Installations</i>	Underground Solutions	24,278
Michael Swanbom	<i>Cyber Discovery 1.0</i>	DHS/CIC	233,200
Erez Allouche	<i>Flexible Geopolymer Coating for High Pressure Steel Pipes & Other Critical Infrastructure Components</i>	Northwest Pipe	20,000
May 2014		Total:	\$813,044
Lindsey Vincent	<i>Logistical Support for LOSFA Summer Bridge Program</i>	US Dept. of Ed.	198,370
Scott Shepard	<i>Quantum Sensing Enhancements for Astronomical Observation</i>	NASA/LSU	34,669
Leland Weiss	<i>SURE Student Application-Amara Uyanna</i>	BoR	4,500
Adarsh Radadia	<i>Synthesis and Characterization of Graphene Films Obtained via Atmospheric Pressure Chemical Vapor Deposition</i>	BoR	4,500
Patrick O'Neal	<i>Real-Time Pharmacokinetic-Based Control of Drug Delivery to an Optimally Perfused Tumor Target</i>	BoR	4,500
Arden Moore	<i>Flexible, Transparent Glucose Sensors Based on CuO Nanowire Networks</i>	BoR	4,500
Cherrie Sciro	<i>Time Bones by Margaret Jenkins Dance Company</i>	New England Foundation	10,000
Steven Jones	<i>Effects of Spatially Distributed Nitric Oxide on Platelet Adhesion</i>	LSUHSC-S	25,000
Erez Allouche	<i>Experimental Evaluation & Validation of a New PVC Liner</i>	IPEX	8,500
P. Arumugam	<i>Development of a Highly Reliable Boron-doped Ultrananocrystalline Diamond Microsensor for Chronic Monitoring of Neurochemicals</i>	BoR	152,069
David Cargill	<i>CIT Faculty/Staff Training Lab Upgrade</i>	Lagniappe Ladies	4,765
Lindsey Vincent	<i>B:3 Summer Bridge Program</i>	US Dept. of Ed.	383,406
Erez Allouche	<i>Manufacturing of Multifunctional Smart Geopolymeric Grouts Using Nanoclay/Fly Ash Composites for Deep Gas and Oil Well Construction and Ground Water Protection</i>	BoR	50,000
Thomas Bishop	<i>Preparing Louisiana Students for Success: 4th LA-SiGMA Graduate Conference</i>	BoR/LaSIGMA	5,600
Edward Bell	<i>Professional Development & Research Institute on Blindness</i>	State of La/La. Center for the Blind	400,000
Lindsey Vincent	<i>Acquisition and Installation of the Fish-Eye Projection System to Enhance Undergraduate, Graduate and K-12 Academic Explorations at Louisiana Tech University</i>	BoR	66,950

PROPOSALS SUBMITTED

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$ Requested
14-246	Dai, Weizhong		Advanced 3D Computational Model & Experimental Verification for the Development of Drug-eluting Coatings for Arterial Pharmacokinetics	LSUHSC	24,944
14-247	O'Neal, Patrick		Real-Time Pharmacokinetic-Based Control of Drug Delivery to an Optimally Perfused Tumor Target	BoR/SURE	4,500
14-248	Dua, Sumeet	Jones, Steven	The North Louisiana Nexus for the Engagement of Students in Biomedical Research (NewLANES)	NIH	1,902,066
14-249	Moore, Mary		Environmentally Responsive Drug Delivery Microparticles for Oral Delivery of Sodium Nitrite	BoR/SURE	4,500
14-250	Newman, Jamie		Biomimetic Hydrogels for Differentiation of Murine Embryonic Stem Cells into Cardiomyocytes	BoR/SURE	4,500
14-251	Wasiuddin, Nazimuddin		Fatigue Damage Characterization of Nanoclay-Modified Asphalt Binders	BoR/SURE	4,500
14-252	Giorno-McConnell, Rebecca		Does luha Impact Bacillus Anthracis Spore Functions	BoR/SURE	4,500
14-253	Vincent, Lindsey		B3: Bridge Building for Future Bulldogs	LaGEARUP/ LOSFA	
14-254	Bell, Edward		LTU Teachers of Blind Students Scholarship Support	US Dept. of EDU	1,248,685
14-255	Ramachandran, Bala		Louisiana Consortium for Advanced Manufacturing (LaCAM)	BoR/NSF	4,990,000
14-256	Cahoy, Dexter		United States-Philippines Collaborative Research on the Impacts of Climate Change to Bivalve Population Connectivity...	NSF	22,933
14-257	Carwile, Guy		HABS Drawing: James Muslow House	La. State Historic Preservation Office	8,853
14-258	Hollins, Bryant		Oxidized Brain Proteins as a Marker for Alzheimer's Progression	Alzheimer's Association	99,890
14-259	Strimbu, Bogdan	Ross, William	Integrated Management of Threats to Mayhaw (Crataegus Spp.) Productivity in the Southeast	USDA-SCRI	0
14-260	Jackson, Paul	Strimbu, Bogdan	Autonomous Micro-UAV Swarms for Assessment of Orchards Crops, With Application to Mayhaw (Crataegus Aestivalis and C. Opaca) and Peach (Prunus Persica)	USDA	0
14-261	Shipp, Michael		Comprehensive Center for Rehabilitation Technology (CCRT)	Louisiana Rehabilitation Services	1,099,737
14-262	Vincent, Lindsey	Madden/Speed	B:3 Summer Bridge Program	LOSFA/ LAGEARUP	383,402
14-263	Vincent, Lindsey	Madden, Diane	Logistical Support for LOSFA Summer Bridge Program	LOSFA/ LAGEARUP	349,211
14-264	Jones, Steven		Effects of Spatially Distributed Nitric Oxide on Platelet Adhesion	LSUHSC	25,000
14-265	Carpenter, Jenna	Wasiuddin/ Wang, J.	Southern Plains Transportation Center	University of Oklahoma	127,221
14-266	Dua, Sumeet	Gates/Gourde	Research-Intensive Internship in Cyber Engineering	CIC	240,000

(*Missing File #'s denote withdrawn proposals)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 3 . . .)

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
14-267	Mills, David		Photosensitive Halloysite/Rubber Nanocomposites for Self-Sterilizing Surfaces-Boyer	LaSPACE/GSRA	5,000
14-268	Jaganathan, Arun	Allouche, Erez	Robotic Mapping & Installation System for Subsurface Utility Relocation	DOT/SBIR	30,000
14-269	Mills, David		A Novel and Variable Polymer for Near & Deep-Space Applications/GSRA Grimes	LaSPACE/GSRA	5,000
14-270	Allouche, Erez	Fletcher, Teresa	Focus Area Development Workshop-Integrated Water Management: Planning for Future Water Supplies	WEF	29,947
14-271	Allouche, Erez	Alam/Wang, J.	Development of a Risk Assessment Toolkit for Horizontal Directional Drilling Installations of Large Diameter Steel Pipes	Petrochina Yunnan Kunlun Gas Co, LTD.	200,000
14-272	Allouche, Erez	Alam, Sharuav	Fostering Sustainability in Mid-sized Cities Through Integrated Resilience and Governance	NSF SRN	250,000
14-273	Wang, Shengnian		LaSPACE GSRA - Nathan Baxter	LaSPACE/NASA/LSU	5,000
14-274	Allouche, Erez		Tensile Testing of Polyurea Specimen Subjected to 70°C and -40°C Temperature	CenturyLink	2,800
14-275	Allouche, Erez	Montes, Carlos	A Semi-Empirical Approach for Calculating the Optimal Thickness of Geospray for the Rehabilitation of Culvert and Drainage Structures	Milliken Infrastructure Solutions	48,800
14-276	Moore, Mary		Sustained Release of Minerals Using Degradable Hydrogels for the Repair of Bone Density/LURA: LUKE	LaSPACE/LURA	6,000
14-277	Weiss, Leland	Zivanovich, Sandra	MEMS Based Solution for an Integrated & Miniaturized Multi-Spectrum Energy Harvesting & Conservation System	NASA	324,384
14-278	Moore, Mary		Environmentally Responsive Drug Delivery Microparticles for Oral Delivery of Sodium Nitrite	LaSPACE/LURA	6,000
14-279	Dua, Purna		Healthcare Data Analysis	St. Francis Hospital	46,408
14-280	Radadia, Adarsh	Ulrich, Alex	Atomic Force Microscope-Based Nanolithography of Graphene	LaSPACE/GSRA	5,000
14-281	Hegab, Hisham		Mathematical Model Simulation Study Microcompressor/GSRA/Shawn Le	LaSPACE/GSRA	5,000
14-282	Moore, Arden		Nanostructured Surface Modifications for Enhanced Phase Change Heat Transfer	LaSPACE/LURA	6,000
14-283	Newman, Jamie		Designing Biomimetic Hydrogels for Generating Cardiomyocytes	LaSPACE/LURA	4,500
14-284	Allouche, Erez	Fletcher, Teresa	Survey of Bid Prices for Trenchless Technology Methods/Update for 2014	Stantec	12,000
14-285	Dai, Weizhong		Absorbing Boundary Conditions for the G-FGTD Method for 1D and 2D Nonlinear Schrodinger Equation	LaSPACE/GSRA	5,000
14-286	Murray, Teresa		GSRA: Jessica Knight	LaSPACE/GSRA	5,000
14-287	Strimbu, Bogdan		Dale Bumpers White River Nwr Continuous Forest Inventory Data Analysis	US Wildlife & Fisheries	15,000

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 5)

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

(*)FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
14-288	Hollins, Bryant		A Novel Low-Stress Sleep Deprivation Method for Mice	BoR/Pfund	10,000
14-289	Selmic, Rastko		Wireless Distributed Spectrum Analyzer System	LaSPACE/LURA	6,000
14-290	Mills, David		Three Dimensional (3D) Metal Printing and Additive Manufacturing for Aerospace Applications	LaSPACE/GSRA	5,000
14-291	Selmic, Rastko		Dynamic Hand Gesture Recognition System	LaSPACE/GSRA	5,000
14-292	O'Neal, Patrick		Quantifying Space-Related Edema Using 3D Imaging and Reflectance Photoplethysmography	LaSPACE/LURA	6,000
14-293	Vincent, Lindsey	Madden, Diane	Logistical Support for LOSFA Summer Bridge Program (revised)	LOSFA/LAGEARUP	149,643
14-294	Vincent, Lindsey	Schilling, Tammy	Training for LOSFA/LA GEARUP Summer Bridge Learning Experiences	LOSFA/LAGEARUP	48,727
14-295	Sawyer, Lee		Computational and IT Support for Bio-MEMS Development	LaSPACE/LURA	6,000
14-296	Wilson, Chester		Graphene Doped Polymer for Lightweight EMP Shielding Applications	LaSPACE/GSRA	5,000
14-297	Wilson, Chester		A Carbon Fiber Health Monitoring Suite for Use in Air and Space Applications	LaSPACE/GSRA	5,000
14-298	DeCoster, Mark		A Novel Approach for New Treatments for Brain Tumors	Glaxo-Smith Kline	
14-299	Bell, Edward		Unified English Braille Training and Certification	US Dept. of EDU	550,000
14-300	Mills, David		Nanoenhanced Nanoporous Implant Surfaces with Sustained and Controlled Release Capabilities	BoR/Pfund	10,000
14-301	Bishop, Thomas		Preparing Louisiana Students for Success: 4th LA-SiGMA Graduate Conference	BoR/LaSIGMA	5,600
14-302	Selmic, Rastko		Route Selection for the Ground Vehicles (Gneuro--NAV)	Army/STTR/GNC	35,000
14-303	Hood, Donna		Carl Perkins Basic Grant	Carl Perkins	12,000
14-304	Maness, Teresa		Using Social Entrepreneurship & Crowdsourcing to Infuse Quantitative Literacy into Undergraduate Life Science Curriculum	NSF	334,933
14-305	Allouche, Erez	Montes, Carlos	Geopolymer Cement for the Protection of Scrubbing Plant Elements from Post-Combustion Amine-related Corrosion	EON	9,760
14-306	Allouche, Erez	Montes, Carlos	Evaluating the Geopolymerization Potential and Commercial Applications of Dolet Hills Power Plant Fly Ash - Phase 6	CLECO Power	40,000
14-307	Allouche, Erez	Montes/Lvov	Manufacturing of Multifunctional Smart Geopolymeric Grouts Using Nanoclay/Fly Ash Composites for Deep Gas and Oil Well Construction and Ground Water Protection	BoR/OPT-IN/EPSCoR	50,000
14-308	Allouche, Erez	Montes/Lvov	Utilization of Geopolymer Concrete in Solidification/Stabilization of Sorbent Impacted Fly Ash, Power Plant Wastewater Treatment Solids and Other CCPs	EPRI	227,382

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 6)

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

(*)FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
14-309	Romer, Braden		Biomechanical Effect of Altered Tactile Feedback in Young & Older Adults	BoR/Pfund	10,000
14-310	Siddiqui, Shabnam		Atomic Scale Modeling of Carbon Nanotube Wrapped in a Polymer Using Density Functional Theory	APS	45,000
14-311	Moore, Mary		Development of Disease Degradable Micro-and Nano-Patterned Biofilms for Localized Drug Delivery After Tumor Resection	BoR/Pfund	10,000
14-312	Murray, Teresa		Study of Cellular Dynamics in an Electromagnetic Field for Regenerative Healing	BoR/Pfund	10,000
14-313	Cargill, David		CIT Faculty/Staff Training Lab Upgrade	Lagnippe Ladies	4,765
14-314	Bishop, Thomas		Comparative Molecular Dynamics of Mononucleosomes	NIH	1,347,700
14-315	Moore, Arden		Three Dimensional Hexagonal Boron Nitride Networks for High Temperature, High Thermal Conductivity Ceramic Composites	LaSPACE/REA	34,750
14-316	Strimbu, Bogdan		Assessment of Orchard Crops With Autonomous Unmanned Aerial Systems	BoR/Pfund	10,000
14-317	Jackson, Paul	Reichley, Jacob	Renovations to Develop Ornamental Plant Varietal Research Beds and New Teaching &U Student Study Areas in the John D. Griffin Horticultural Gardens at LaTech University	Stanley Smith Horticultural Trust	0
14-318	Weiss, Leland	Moore, Arden	Autonomous NG Monitoring for Leak & Incident Prevention	ARPA-E	0
14-319	Iasemidis, Leon	Vlachos, Ioannis	Analysis of Brain Dynamics in Ictogenesis	NIH	430,790
14-320	Hollins, Bryant		Oxidized Brain Protein Profiles as a Marker for Alzheimer's Progression	National Institute of Aging	183,949
14-321	Hollins, Bryant		Protein Nitrosylation in Hepatocytes Following Acetaminophen-induced Hepatotoxicity	National Institute of Diabetes and Digestive & Kidney Disease	360,592
14-322	Mills, David		Self-Sterilizing Surfaces Using Doped Clay/ Polymer Nanocomposites	NIH	28,350
14-323	Arumugam, Prabhuh		Atomic Scale Modeling of Electronic Properties of Polymer-Carbon Nanotubes	BoR/Pfund	10,000
14-324	Moore, Arden		Ultrathin Hexagonal Boron Nitride for Near-junction Thermal Management of Electronics	BoR/Pfund	10,000
14-325	Wang, Jay		Development of an Innovative Model for Analyzing Current (Wave)-Dike-Vegetated Soil Interaction and its Application in Louisiana Coastal Restoration Projects	BoR/Pfund	10,000
14-326	Wang, Shengnian		High Octane Number Gasoline Production from Lignin	DOE	269,956
14-327	Newman, Jamie		The Role of Mediator in Regulating Mesenchymal Stem Cell State	NIH	300,000
14-328	Schillinger, Don	Napper/Vincent/Deese	UTEACH at LaTech	UTEACH Institute	1,373,090

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 7)

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

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
14-329	Mills, David		Nanoenhanced Hydrogels ad Chemoattractant Systems for Tissue Repair and Regeneration	NIH	217,788
14-330	Mills, David		Self-Sterilizing Surfaces Using Doped Clay/ Polymer Nanocomposites	LaSPACE/LSU/ REA	30,850
14-331	Voziyanov, Yuri		Genome Engineering by Hybrid Flp-TAL and Cre-TAL Recombinases	NIH	1,594,971
14-332	Dua, Perna	Chowriappa, Pra-deep	A Network Based Tool for Analyzing Different Neuroimaging Modalities for Neurodegenerative Diseases	NIH	267,550
14-333	Sherer, Eric	Orr, Marisa	Risk of Colorectal Cancer Following Inadequate Quality Colonoscopy	National Institutes of Health/National Cancer Institute)	143,403
14-334	Rutledge, Julie		WISE: Together, We Inspire Smart Eating	Lincoln Health Foundation	103,595
14-335	Moore, Mary		Development of Multi-Functional Hydrogel Nanoparticles for Inhalable Delivery of Platinum Chemotherapeutics for the Treatment of Lung Cancer	NIH	347,112
14-336	Rutledge, Julie	Chestnut, Laura	Bulldog Book Club: Increasing Lincoln Parish Preschoolers' Access to Books in the Home	Lincoln Health Foundation	76,500
14-337	Mills, David		Hybrid Core/Shell Nanoparticles for Targeting Multi-Drug Resistant Cancer Cells	NIH	310,679
14-338	Norris, Dave	Napper/Kordal	LaREACH Awards (U01)	NIH	3,000,000
14-339	Liu, Pei		Exploring How Student Preferences Impact Their Milk Selection	National Food Service Management Institute	23,846
14-340	Alam, Shaurav	Allouche, Erez	Pickle Jar Test	Quest Inspar	21,390
14-341	Gibson, Mark		McIntire-Stennis Cooperative Forestry Research Program - 2014	USDA	245,757
14-342	Strimbu, Bogdan		Use of High Resolution Aerial Photography and Other Remote Sensing System Mounted on UAV for Forestry Application	Weyerhaeuser	56,027

(*Missing File #'s denote withdrawn proposals)

NEW GRANTS AWARDED (CONT'D FROM PAGE 2)

Adarsh Radadia	<i>Acquisition of Raman Microscopy for Characterization of Macro-to Nanoscale Systems</i>	BoR	86,100
Patrick O'Neal	<i>Nanotechnology Lab Enhancement for Nanoparticle Manufacture Education</i>	BoR	49,947
K. Heiden	<i>Healthy Reflections: College Students' Influence on High School Adolescents' Self-Image</i>	BoR	29,289
Marilyn Cox	<i>Improvements to the Sophomore, Junior, and Senior Level Laboratory Experiences at Louisiana Tech University</i>	BoR	70,988
Shaurav Alam	<i>Pickle Jar Test</i>	Quest Inspar	31,3960
June 2014			Total: \$83,362
			2013-14 YTD: \$9,252,961