

Louisiana Tech University



BREEZE BULLETIN

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

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2016-17 TECH FRINGE/F&A RATES

- Faculty/Unclassified/Post Doc: 46.85%
- Civil Service: 56.15%
- Temporary/Part-time: 10.20%
- DROP: 20.35%
- Federal F&A (S/W): 49.40%

Go to the following link to download as a pdf file: <http://research.latech.edu/files/documents/LaTech%202016-17%20Fringe%20Rates.pdf>.

OUR IN-HOUSE WORKSHOPS

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

- **Amplifund Training (NEW Grant Management database):**
- September 15, 10-11 WT1527
- **New Faculty: LaTech Grant Management** - September 22, 2-3 WT1527
- **New Faculty: LaTech Proposal Process** - September 22, 3-4 WT1527

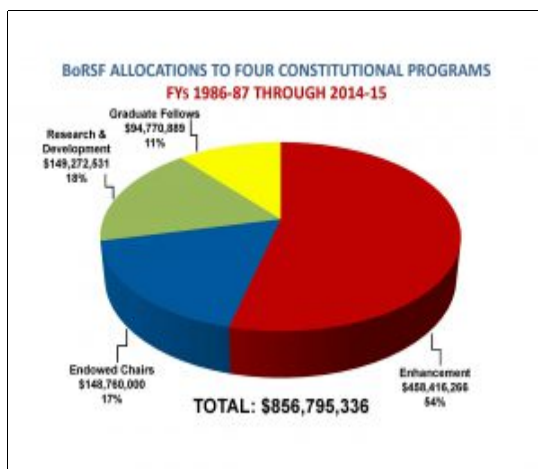


Each problem that I solved became a rule which served afterwards to solve other problems.

*Rene Descartes
 (1596-1650, French Philosopher, Scientist)*

2016-17 BoR Support Fund Funding Opportunities

The Sponsored Programs division of the Board of Regents administers State and federal programs that provide funds and other resources to Louisiana's post-secondary education community and interacts extensively with institutions and governmental agencies on issues related to post-secondary research and educational enhancement. The principal activity of Sponsored Programs is centered around the Board of Regents Support Fund (BoRSF) and its major related initiative, the Louisiana Experimental Program to Stimulate Competitive Research (LA EPSCoR) and the Louisiana Systemic Initiatives Program/Louisiana Gaining Early Awareness and Readiness for Undergraduate Programs (LaSIP/LA GEAR UP). Funded through the Louisiana Education Quality Trust Fund (LEQTF), the BoRSF affords grant opportunities for four constitutionally designated activities designed to improve educational quality and foster Louisiana's research faculty and infrastructure. LA EPSCoR, supported by the National Science Foundation, is contributing significantly to the growth of Louisiana's research enterprise by providing funding and opportunities for science and engineering faculty, graduate and undergraduate students, and post-doctoral assistants. LaSIP, funded with a combination of BoRSF, BESE, and Federal dollars, provides professional development opportunities for K-12 teachers, and LA GEAR UP, a Federal grant initiative within LaSIP, works with a cohort of 61 schools with a goal of increasing the number of low-income students who enter and succeed in college. In addition, Sponsored Programs interacts with other federal agencies, engages in policy discussions related to research and education, and oversees programs established with special legislative appropriations.



More information on BoRSF: <https://web.laregents.org/contact-info/about/about-borsf/>.
 More information on Louisiana EPSCoR: <https://web.laregents.org/la-epscor/>
 More information on LaSIP/LA GEARUP: <https://web.laregents.org/programs/louisiana-systemic-initiatives-program-lasip/>

NEW GRANTS AWARDED

| PI | Title | Funding Agency | \$ Awarded |
|--------------------------|--|------------------------------------|----------------------------------|
| Chester Wilson | <i>Nanostructured Antenna Material for Large Bandwidth Big Data Transmission</i> | DOD | 100,125 |
| Prabhu Arumugam | <i>Multimodal Biosensing of Brain Chemicals and Field Potentials using Diamond Nanodes</i> | NSF | 299,806 |
| Shaurav Alam | <i>Pickle Jar Test of Sewer Liner - Grout Materials - PART A</i> | Milliken | 10,980 |
| Jeremy Mhire | <i>Cyber Society Curriculum Development - Phase III</i> | CIC | 104,000 |
| May 2016 (cont'd) | | | Total: 514,911 |
| Pedro Derosa | <i>Computational Study of Surface Interaction Between Peptides and Graphitic</i> | Clarkson | 180,000 |
| Lauren Colvin | <i>M*A*S*H 2016</i> | CLAHEC | 10,703 |
| N. Wasiuddin | <i>Apical Reentry for Fiber Repair</i> | CenturyLink | 15,040 |
| Mike O'Neal | <i>CADENSE Threat Escalation / De-Escalation Visualization and Modeling</i> | CIC - LTRI | 13,630 |
| Erica Murray | <i>3D Printing of Pt-Au Electrodes for NOx Sensing</i> | BoR/NSF/CIMM | 10,000 |
| Erica Murray | <i>Determination of Pore Volume and Pore Volume Distribution of Hardened Concrete Samples by Mercury Intrusion Porosimetry</i> | University of Colorado | 1,281 |
| Ahmad Atassi | <i>The Making and History of the Earliest Islamic Biographical Dictionary: Ibn Sa'd's Kitab al-Tabaqat al-Kabir</i> | BoR | 32,728 |
| Shaurav Alam | <i>Enhancement of Structural Health Monitoring Capabilities at Louisiana Tech</i> | BoR | 18,600 |
| Niel Crews | <i>Enhancement: Acquisition of 3D Laser Scanning Confocal Microscope for Nanotechnology Education and Training</i> | BoR | 116,557 |
| Jay Wang | <i>Enhancement of Geotechnical Engineering Laboratory for Teaching and Research</i> | BoR | 55,783 |
| Sheryl Shoemaker | <i>Increasing Diversity in Doctoral Populations at Louisiana Tech University 2016-20</i> | BoR | 95,000 |
| B. Ramachandran | <i>Superior Graduate Fellows in Molecular Sciences and Nanotechnology 2015-2020</i> | BoR | 100,000 |
| N. Wasiuddin | <i>Ductility of Extreme-Temperature Asphalt Binders by Shear and Extensional Rheology</i> | LTRC | 30,000 |
| Teresa Murray | <i>AEMB 2016 Conference Grant Application</i> | NSF | 15,000 |
| Jay Wang | <i>Renewal of Southern Plains Transportation Center Funding</i> | USDOT/UO | 34,192 |
| N. Wasiuddin | <i>Renewal of Southern Plains Transportation Center Funding</i> | USDOT/UO | 40,000 |
| David Hall | <i>Renewal of Southern Plains Transportation Center Funding</i> | USDOT/UO | 35,000 |
| Jamie Newman | <i>Characterization of Contractility in Embryonic Stem Cell-Derived Cardiomyocytes</i> | LSU | 3,750 |
| Adarsh Radadia | <i>A Microelectrofluidic System for Neurological Disease Research</i> | LSU | 19,000 |
| M. Caldolera-Moore | <i>IN VITRO CHARACTERIZATION OF PH RESPONSIVE GENIPIN-CHITOSAN HYDROGEL FOR DIABETIC FOOT ULCER TREATMENT</i> | LSU | 7,500 |
| Katie Evans | <i>Sophomore Fast-Forward: A Summer Bridge Program to Support Retention in Engineering</i> | NSF | 999,234 |
| Edward Bell | <i>Louisiana Center for the Blind/La. Tech</i> | State of La./ Center for the Blind | 400,000 |
| June 2016 | | | Total: 2,232,998 |
| | | | Total 2015-16: 12,950,273 |
| David Mills | <i>3D Printing of Customized Implants for Repair of Orofacial Deformities and Defects</i> | BoR | 37,623 |
| Yuri Lvov | <i>Halloysite Microtubes as Templates for Separate Inside/outside Catalytic Nanoparticles</i> | BoR | 20,000 |
| Shengnian Wang | <i>Additive Manufacturing Stitched Composite Nanofibers as Electrodes for Lithium Batteries</i> | BoR | 20,000 |
| L. Keith-Vincent | <i>LACAL through Ed Next Horizon</i> | Education's Next Horizon | 59,878 |

PROPOSALS SUBMITTED

| * FILE # | PI | Co-PI 's | TITLE | AGENCY | \$ Requested |
|----------|------------------------|----------------------------------|---|---|--------------|
| 16-290 | Carwile, Guy | | HABS Drawings - Simon Herold House | Louisiana Div. of Historic Preservation | 8,276 |
| 16-291 | Mhire, Jeremy | | Cyber Society Curriculum Development - Phase III | CIC | 104,000 |
| 16-292 | Bardaweel, Hamzeh | | Fabrication and Characterization of Broadband Nonlinear Electromagnetic Energy Harvester | LaSPACE | 8,000 |
| 16-293 | DeCoster, Mark | Lvov/ Murray T. | NSF-EAGER-REU Supplement | NSF | 7,500 |
| 16-294 | Hall, David | Nazimuddin/ Wang J. | Renewal of Southern Plains Transportation Center Funding | SPTC | 128,300 |
| 16-295 | Alam, Shaurav | Isely, Tom | Pickle Jar Test of Polypropylene Injection Molded Internal Connector Material | Tone Marketing, LLC | 9,760 |
| 16-296 | Bardaweel, Hamzeh | | Design and fabrication of a hybrid hydraulic- electromagnetic shock-absorber for space applications | LaSPACE/NASA | 8,000 |
| 16-297 | Iseley, Tom | | Tomahawk Pilot CWS – A TTC Water Living Lab Project | Charleston Water System | 30,000 |
| 16-298 | Keith-Vincent, Lindsey | Madden, Diane | Louisiana Center for Afterschool Learning (LACAL) | Mott Foundation | 225,000 |
| 16-299 | Iseley, Tom | Wang, J./Alam | Center for Underground Freight Transportation (CUFT)/Improving Mobility of People and Goods | U.S. Department of Transportation | 150,000 |
| 16-300 | Crews, Niel | | Expanding Value Louisiana's Technical Assistance Capacity to Deliver Source Reduction Assistance | EPA | 122,696 |
| 16-301 | Igou, Frank | Apter-Deselles/ Sheets/Toaddy | Police Officer Hiring Process Review, City of Little Rock | City of Little Rock, Arkansas | 0 |
| 16-302 | Iseley, Tom | | I/UCRC Letter of Intent | NSF | 0 |
| 16-303 | Crews, Niel | | I/UCRC: Center for Sustainable Manufacturing | NSF | 0 |
| 16-304 | Bardaweel, Hamzeh | | Dynamic analysis and design optimization of a regenerative shock absorber | LaSPACE/LURA | 6,000 |
| 16-305 | Murray, Teresa | | AEMB 2016 Conference Grant Application | NSF CBET BME | 15,000 |
| 16-306 | Iseley, Tom | | Practical Condition Assessment and Failure Probability Anyalysis of Small Diameter Ductile Iron Pipe | Water Research Foundation | 25,000 |
| 16-307 | Bell, Edward | | Preparing Teachers of Blind Students | LDOE | 125,000 |
| 16-308 | Murray, Erica | Montes, Carlos | Determination of Pore Volume and Pore Volume Distribution of Hardened Concrete Samples by Mercury Intrusion Porosimetry | University of Colorado | 1,281 |
| 16-309 | Alam, Shaurav | Hall/Iseley | Tensile Creep Testing of CIPP Liner Material as per ASTM D2990 | CIPP Corp. | 13,158 |
| 16-310 | Weiss, Leland | Bardaweel, H. | Small-scale Personnel Operative & Wearable Energy Recovery System (POWERS) and large-scale Vehicle Impact & Recoil Energy Scavenging (VIREs) Package using Scalable Broadband Nonlinear Electromagnetic Energy Harvesting | DOD/Army | 0 |

(*Missing File #'s denote withdrawn proposals)

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

| * FILE # | PI | Co-PI 's | TITLE | AGENCY | \$ |
|----------|------------------------|------------------------|---|--|---------|
| 16-311 | Jackson, Paul | | Evaluation of Longleaf Pine Seedlots for the Prevalence of Hybridization: Phase II | USDA | 28,390 |
| 16-312 | Sheets, Tilman | Apter-Deselles, M. | Workforce Development Office of Office of Natural Resource Revenue Consultation | ONRR | 3,750 |
| 16-313 | Newman, Jamie | | Differentiation of Pluripotent Stem Cells into Cardiomyocytes for Cardiac Tissue Engineering | LaSPACE/GSRA | 8,000 |
| 16-314 | Bardaweel, Hamzeh | | Broadband Nonlinear Vibrational Energy Harvester for Aerospace Applications | LaSPACE/REA | 34,875 |
| 16-315 | Norris, Dave | | Louisiana Tech NSF I-Corps Site: Teaming Up to Make Ideas Real | NSF | 500,000 |
| 16-316 | Arumugam, Prabhu | | Characterization of a platinum-diamond hybrid electrochemical probe for single cell analysis | LaSPACE/NASA/LURA | 6,000 |
| 16-317 | Hood, Donna | | Nursing Perkins Basic Grant 2016-17 | Perkins Basic Grant | 32,998 |
| 16-318 | Caldolera-Moore, Mary | | Development of Drug Delivery Carrier Systems for Controlled Release of Vasodilator Drugs for Improved Cardiovascular Health of Astronauts | LaSPACE/LURA | 6,000 |
| 16-319 | Wang, Shengnian | | EAGER: Biomanufacturing mRNA-loaded Whole Blood Cell Vaccine by Size-Specific Flow Electroporation | NSF | 299,968 |
| 16-320 | Caldolera-Moore, Mary | | High Surface Area Nanopatterned Hydrogels for Wound Healing and Tissue Scaffolding Applications | LaSPACE/LURA | 6,000 |
| 16-321 | Wasiuddin, Nazimuddin | | Apical Reentry for Fiber Repair | CenturyLink | 15,040 |
| 16-322 | O'Neal, Mike | | CIC - LTRI - CADENSE Threat Escalation / De-Escalation Visualization and Modeling | CIC | 13,630 |
| 16-323 | Keith-Vincent, Lindsey | Schillinger, Don | STEM Cyber Course Sequence and Certificate Program | CIC | 45,000 |
| 16-324 | Eklund, Sven | | Preparation of in-situ Regolith-Based Geopolymers for Martian Structures | LaSPACE/LURA | 6,000 |
| 16-325 | Eklund, Sven | | Corrosion Reduction of Launch Pad Concrete with Electrokinetic Nanoparticle Treatment | LaSPACE/LURA | 6,000 |
| 16-326 | Wilson, Chester | | GRSA Alex Ulrich: Inexpensive Bulk Manufactured Graphene for 3D Manufactured Space Components | LaSPACE/GRSA | 8,000 |
| 16-327 | Wilson, Chester | | GRSA Nick Groden: Nanoparticle-Enhanced Colloid Thruster for Microsatellites | LaSPACE/GRSA | 8,000 |
| 16-328 | Wilson, Chester | Keith-Vincent, Lindsey | LaSpace MRS Amanda Langston | LaSPACE/MRS | 6,000 |
| 16-329 | Wilson, Chester | Keith-Vincent, Lindsey | CubeSats Containing Adaptable GRIN Fresnel Zone Plates in Collaboration with NASA Langley | LaSPACE/LURA | 6,000 |
| 16-330 | Dua, Sumeet | | Information Fusion, Indexing and Search Algorithms for Active Cyber Modeling and Intelligence | Air Force Research Laboratory (Clarkson Aerospace) | 165,387 |

(*Missing File #'s denote withdrawn proposals)

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

| *FILE # | PI | Co-PI 's | TITLE | AGENCY | \$ |
|---------|--------------------------|---|--|--|---------|
| 16-331 | Adams, Joshua | Clay/Keith.A/ Jackson.P/ Holley.G | Cedar + Garlic Insect Repellent | Richard Fewell | 17,168 |
| 16-332 | Wasiuddin, Nazimuddin | Pumphrey, Norm | Investigation of New Apical Top Coat Materials | CenturyLink | 22,940 |
| 16-333 | Colvin, Lauren | | M*A*S*H 2016 | Central Louisiana Area Health Education Center | 10,703 |
| 16-334 | Adams, Joshua | Palmer, Wesley | Treenutri Product Testing | Treenutri Company | 10,000 |
| 16-335 | Weiss, Leland | Moore, Arden | NEPTUNE: Non-Equilibrium Platform Turbulence Understanding for Naval Environments | Radiance Technologies | 0 |
| 16-336 | Crews, Niel | | Building Ecosystem Support for Source Reduction Assistance in Chemical Manufacturing | EPA | 129,506 |
| 16-337 | Weiss, Leland | Moore, Arden | Surface Enhanced, Efficient Transfer Heat Exchanger (SEETHE): Optimizing Environmental Control Unit (ECU) Battle Space Power Use | Army | 0 |
| 16-338 | Whitaker, Robert | | Humanities Respawned: A Bridge Between Scholarship and Video Games | NEH | 28,456 |
| 16-339 | Stafford, Tom | Martin, Chris | Cybersecurity Promotion among Under-Represented Groups: A Social Media Competition for College Scholarships | NSA | 20,000 |
| 16-340 | Murray, Teresa | | In Vivo Imaging and Analysis of Neuroblast Migration Before and After Brain Injury in the Same Mice | NIH | 318,975 |
| 16-341 | Norris, Dave | | Louisiana Tech RIS Seed Fund Support Grant: The Fund for Louisiana's Future | EDA | 249,820 |
| 16-342 | Selmic, Rastko | | Integrated Monitoring AWAREness Environment (IM□AWARE) | NASA/STTR | 160,000 |
| 16-343 | Arumugam, Prabhu | Murray, Teresa | Diamond-Platinum Nanodes for Multi-Analyte Brain Sensing | NIH | 342,286 |
| 16-344 | Keith-Vincent, Lindsey | Madden, Diane | LACAL through Ed Next Horizon | Next Horizon | 59,878 |
| 16-345 | Weiss, Leland | Moore, Arden | Self-Sensing Heat Exchangers and Materials for NASA Applications | LaSPACE/REA | 79,591 |
| 16-346 | Voziyanov, Yuri | Voziyanov, Yuri | Self-Sensing Heat Exchangers and Materials for NASA Applications | NIH | 380,471 |
| 16-347 | Bishop, Thomas | | AREA: Molecular Dynamics of Nucleosomes A and B of the MMTV | NIH | 384,926 |
| 16-348 | Sherer, Eric | Madadi, Mahboubeh | Quantification of colonic neoplasia growth and impact on colonoscopy follow-up | NIH | 360,665 |
| 16-349 | Dowling, Bobby | | North Campus Trails | Louisiana Recreational Trails Program/ | 72,000 |
| 16-350 | Grafton, Tommy | Boyd, Rhonda | Project Northland | LDHH | 93,401 |

(*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 | \$ |
|---------|------------------------|-----------------|--|---------------------------|---------|
| 17-001 | Mills, David | | 3D-Printed Stem Cell Sheet Composite Scaffolds for Bone Defect Repair and Regeneration | DOD eBRAP | 0 |
| 17-002 | Murray, Teresa | | Administrative Supplement to R21NS090131 for Multiphoton Laser Purchase | NIH | 50,000 |
| 17-003 | Lynam, Joan | Adams, Josh | Deep Eutectic Solvents for Deconstruction of Under-utilized Forest Byproducts | USDA/NIFA/AFRI | 348,932 |
| 17-004 | Moore, Arden | | LaACES: Measurement of UVA, UVB, and UVC Irradiance at High Altitudes | LaSPACE/NASA/ LaACES | 10,000 |
| 17-005 | Caldolera-Moore, Mary | | CAREER: Dynamic Tunable 3D Platforms for Controlling Stem Cell Fate | NSF | 572,479 |
| 17-006 | Murray, Teresa | | CAREER: Creating Living Labs for Longitudinal Study of Neurogenesis | NSF | 500,000 |
| 17-007 | Radadia, Adarsh | | CAREER: Multiplexed Measurement of Neurotransmitter Dynamics Using Enzyme Field Effect Transistors | NSF | 507,300 |
| 17-008 | Wilson, Chester | | 3D Manufactured Components for Solar Eclipse Characterization Flight | LaSPACE/NASA/ LaACES | 10,000 |
| 17-009 | Moore, Arden | | CAREER: Unlocking the Mechanistic Interdependence of Phase Interface Dynamics and Heat Transfer for Single and Coalesced Bubbles in Pool Boiling Processes | NSF/CAREER | 543,484 |
| 17-010 | Rutledge, Julie | Chestnut, Laura | Bulldog Book Club - Year 4 | Lincoln Health Foundation | 75,500 |
| 17-011 | Hollins, Bryant | | CAREER: An Integrated Microchip for Separating Proteomic Markers of Redox Status | NSF/CAREER | 504,263 |
| 17-012 | Sherer, Eric | | CAREER: Pharmacometric Model Building Using Global Searches | NSF/CAREER | 551,173 |
| 17-013 | Adams, Joshua | | Using Physiological Measurements and Modeling to Improve Short Rotation Poplar Productivity and Ecosystem Services on Upland and Alluvial soils | USDA/NIFA/AFRI | 110,198 |
| 17-014 | Rutledge, Julie | | WISE: Together, We Inspire Smart Eating Year 3 | Lincoln Health Foundation | 67,488 |
| 17-015 | Hood, Joanne | | 8(g) Student Enhancement Block Program | La. Dept of Edu/ BESE | 3,259 |
| 17-016 | Adams, Joshua | | The Impact of Genotype Selection on Severe Drought Tolerance and Recovery in Mid-rotation Loblolly Pine (Pinus taeda L.) | USDA/AFRI | 134,216 |
| 17-017 | McCoy, Bryan | Vessel, Amy | Mentor Teacher Action Research | La. Dept. of Education | 20,000 |
| 17-018 | Keith-Vincent, Lindsey | Madden, Diane | CORE Values in Education | JSU through DOE | 99,987 |
| 17-019 | Lvov, Yuri | | Nanoconfined Catalyst Synthesis in Mesoporous Tubule Clay | BoR/ITRS | 0 |
| 17-020 | Prather, Kyle | | Thingery Product Design and Prototyping Workspace Expansion | LED/LBIA | 24,989 |
| 17-021 | Crews, Niel | | Travel to NASA's Marshall Space Flight Center | NASA/LASPACE/ TAP | 1,482 |
| 17-022 | Clay, Natalie | | Quantifying the Effects of a Fungus-mediated Termite and Bark Beetle Interaction on Wood Decomposition | NSF/EAGER | 52,193 |

(*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 | \$ |
|---------|-----------------------|-----------------------|--|--|---------|
| 17-023 | Lvov, Yuri | | Aging in C. Elegans Exposed to Nanoclays and Remediation by Resveratrol / Curcumin Formulations | North La. Biomedical Research Foundation Seed Funding Program (BRFSFP) | 50,000 |
| 17-024 | Jackson, Paul | | Relating Substrate pH to Pathogen Populations, Causal Virulence, and Southern Pine Seedling Quality | USDA | 14,649 |
| 17-025 | O'Neal, Mike | | SCSD: A Self-healing Content and Services Distribution Framework Based on Named Data Networking | Cisco | 33,287 |
| 17-026 | Mills, David | Giorno, Rebecca | Building Careers in Biology through Inquiry and Mentored-Research | NSF | 334,603 |
| 17-027 | Sawyer, Lee | Greenwood/ Wobisch | High Energy Physics at the Energy Frontier at Louisiana Tech | DoEDU | 0 |
| 17-028 | Derosa, Pedro | | Identity Development Evaluation of African American Science Students (IDEAAS): A Longitudinal Investigation | NSF | 141,946 |
| 17-029 | Bardaweel, Hamzeh | | Regenerative Hybrid Hydraulic-Electromagnetic Shock-Absorber | BoR/ITRS/PoC | 0 |
| 17-030 | Bardaweel, Hamzeh | | Nonlinear Dynamics of Magnetically-levitated Broadband Vibration Energy Harvesting | BoR/RCS | 0 |
| 17-031 | Newman, Jamie | | Replicative Aging in Stem Cells as a Model for Aging and Loss of Regenerative Potential | Biomedical Research Foundation | 42,330 |
| 17-032 | Rutledge, Julie | | Family and Early Educator Dynamic Impact on Children's Nutrition and Growth | BoR/RCS | 200,000 |
| 17-033 | Murray, Teresa | | Evaluation of the Tripeptide GHK for Long-Term Treatment of Age-Related Macular Degeneration and Related Neuro-Degenerative Conditions | Biomedical Research Foundation | 48,253 |
| 17-034 | Alam, Shaurav | Iseley, Tom | Pickle Jar Test (PJT) of Phenoline Tank Shield Coating Material | Carboline Company | 11,590 |
| 17-035 | Caldolera-Moore, Mary | | Development of Next Generation 3-Dimensional, Variable Material Printer System | LaSPACE Senior Design Program | 4,000 |

NSF Research Experiences for Undergraduates (REU)

This program provides educational opportunities for Undergraduate Students . This program provides indirect funding for undergraduate students to participate in research. To inquire about possible funding opportunities, please contact the organizations that have received awards. (Do not contact NSF.) A directory of active REU Sites, along with contact information, can be found on the Web at http://www.nsf.gov/crssprgm/reu/reu_search.cfm.

REU site contacts: http://www.nsf.gov/crssprgm/reu/reu_contacts.jsp.

ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS

- Lee Sawyer, *Bridge Funding: High Energy Physics Research at the Energy Frontier at Louisiana Tech*, US Dept of Energy: \$130,000;
- Mark Gibson, *Mcintire-Stennis Cooperative Forestry Research Program - 2016*, USDA/McIntire Stennis: \$201,716;
- Stan Napper, *CEA for CSC*, La. Dept. of Economic Development: \$900,000;
- Prerna Dua, *A Predictive Modeling Framework for Studying Disparity in Colorectal Screening*, NIH through LSU: \$55,923;
- Sumeet Dua, *LBRN Biomedical Data Mining and Biostatistics (BDMB) Subcore*, NIH through LSU: \$57,952;
- Jamie Newman, *The Role of Mediator in Regulating Mediator in Maintaining and Differentiating Human Mesenchymal Stem Cells*, NIH through LSU: \$118,786;
- Rebecca Giorno-McConnell, *Spore Outer Structures: Contribution to Germination Heterogeneity*, NIH through LSU: \$128,965;
- Stan Napper and Sumeet Dua, *Computational Study of Surface Interaction Between Peptides and Graphitic Surfaces*, Clarkson Aerospace Corp.: \$34,000;
- Stan Napper and Jean Gourd, *Computational Study of Surface Interaction Between Peptides and Graphitic Surfaces*, Clarkson Aerospace Corp.: \$33,000;
- Stan Napper and Rastko Semic, *Computational Study of Surface Interaction Between Peptides and Graphitic Surfaces*, Clarkson Aerospace Corp.: \$33,000;
- Jean Gourd, *High School A.P. Computer Science Curriculum*, DHS through CIC: \$32,130;
- Mark DeCoster, *NSF-EAGER-REU Supplement*, NSF: \$7,500;
- Paul Jackson, *Evaluation of Longleaf Pine Seedlots for the Prevalence of Hybridization: Phase II*, USDA Forest Service: \$28,390;
- Jamie Newman, *Optimization of Cardiac Muscle Generation for Replacement of Damaged or Weakened Tissue*, LSUHSC: \$23,500;
- Tommy Grafton, *Project Northland*, Northeast Delta Human Service Authority: \$93,402;
- Teresa Murray, *Administrative Supplement to R21NS090131 for Multiphoton Laser Purchase*, NIH: \$50,000;
- Teresa Murray, *GRIN Lens Implant For Preclinical In Vivo Documentation of TBI WM Damage and Drug Effects*, NIH: \$139,193;
- Mary Caldolera-Moore, *Novel Environmentally Responsive Nanoparticles for Dual Controlled Drug Release of Diallyl Trisulfide and Sodium Nitrite Orally - Renewal*, LSUHSC: \$21,400.

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University Research Forms & Downloads:

[http://research.latech.edu/
resources/forms_downloads](http://research.latech.edu/resources/forms_downloads)



DISSERTATION HIGHLIGHTS (SPRING/SUMMER 2016)**Spring Commencement 2016****DOCTOR OF AUDIOLOGY****Tara Harmon-McElhenny, Albuquerque, NM**

Dissertation: "The Effectiveness of Assertiveness Training on Perceived Communication Handicap in Hearing Impaired Individuals"
Major Advisor: Dr. Melinda F. Bryan

Kaylee Ann Laitinen, Sault Ste. Marie, MI

Dissertation: "A Comparison among Hearing Healthcare Digital Applications: An Examination of Test Accuracy and User Perception in Normal Hearing Young Adults"
Major Advisor: Dr. Steven G. Madix

Keeley Carter Layfield, Jena

Dissertation: "Effects of Preferred Listening Levels when Using Gaming Headphones on Hearing Sensitivity"
Major Advisor: Dr. Melinda F. Bryan

Nia B. McGill Potier, Marrero

Dissertation: "The Validity and Reliability of Online Hearing Tests: Easier is Not Always Better"
Major Advisor: Dr. Melinda F. Bryan

Lindsay McGehee Young, Zachary

Dissertation: "The Effect of Cost, Benefit, and Level of Technology on Patient Preference and Satisfaction with Hearing Aids"
Major Advisor: Dr. Matthew D. Bryan

DOCTOR OF BUSINESS ADMINISTRATION**Hyun Chul Cho, South Korea**

Dissertation: "Contribution of 52-week Low to the momentum strategy on 52-week High"
Major Advisor: Dr. Jungshik Hur

Sammy Githuku Muriithi, Ruston

Dissertation: "The Effect of Corporate Social Performance on Acquisition Performance."
Major Advisor: Dr. Son Le

DOCTOR OF EDUCATION**Laura Leigh Bostick, Pryor, OK**

Dissertation: "Implementing the Unified English Braille Code: Perspectives of Teachers of Students with Visual Impairments"
Major Advisor: Dr. Dawn Basinger

Donna Burnett Johnson, Bossier City

Dissertation: "An Exploration of the Perception of the Role of Followership in the Development of Female Leaders in Higher Education Administration"
Major Advisor: Dr. John Harrison

DISSERTATION HIGHLIGHTS (SPRING/SUMMER 2016-CONT'D FROM PG 9)**Shane Alexander Puckett, Ruston**

Dissertation: "Higher Education Leadership and Communication Apprehension
Reduction Efficacy"
Major Advisor: Dr. Dawn Basinger

Sheri Reneé Robken, Ruston

Dissertation: "The Effect of a District-Wide Literacy Initiative on English/Language Arts Standardized Test
Scores"
Major Advisor: Dr. Randy Parker

DOCTOR OF PHILOSOPHY**Christen Jude Boyer, New Iberia**

Dissertation: "Clay Nanotube Composites for Antibacterial Nanostructured Coatings"
Major Advisor: Dr. David Mills

Jaymes Hunter Collins, Bossier City

Dissertation: "Microbial Ecology of Waterborne Pathogens in *Sus Scofra* and *Odocoileus Virginianus* in the
Jackson-Bienville Wildlife Management Area"
Major Advisor: Dr. William Wolf

Khadeejah Mohammed AL Ghadeer, Ruston

Dissertation: "Study of Factorial Moments and Intermittency in PP Collisions at $\sqrt{s} = 13$ TeV"
Major Advisor: Dr. Lee Sawyer

Salah Eldeen Mofleh Alzghoul, Jordan

Dissertation: "Detecting and Screening of the Prostate Cancer by Using an Optical Nano Porous Thin Film
Sensor"
Major Advisor: Dr. Sandra Zivanovic

Jeffery Joseph Ambrose, Jr., New Orleans

Dissertation: "Multifunctional Platforms for Gene and Drug Delivery for Cancer Therapy"
Major Advisor: Dr. David Mills

Shravan Rakesh Animilli, Hyderabad Talangana, India

Dissertation: "Electromagnetic Properties of Metal-Dielectric Composite Media and their Applications"
Major Advisor: Dr. Dentcho Genov

Juan Chen, Bohu, China

Dissertation: "Manufacturing Polyacrylonitrile Nanowires and Nanofibers for Sensing and Energy Storage Ap-
plications"
Major Advisor: Dr. Shengnian Wang

Divya Narayan Elumalai, Puttaparthi, Andhra Pradesh, India

Dissertation: "Tunable Controlled Release of Molecular Species from Halloysite Nanotubes"
Major Advisor: Dr. Pedro Derosa

Mohammad Readul Islam, Ruston

Dissertation: "Rheological Study of the Effects of Water on Asphalt Binders and Emulsions"
Major Advisor: Dr. Nazimuddin Wasiuddin

DISSERTATION HIGHLIGHTS (SPRING/SUMMER 2016-CONT'D FROM PG 10)**Sonali Jayant Karnik, Mumbai, Maharashtra, India**

Dissertation: "Enhanced Bioactive Scaffolds for Bone Tissue Regeneration"
Major Advisor: Dr. David Mills

Ashish Sharma, Kanchanpur, Nepal

Dissertation: "Energy Harvesting Using Photovoltaic and Betavoltaic Devices"
Major Advisor: Dr. Sandra Zivanovic

Dezhi Zhang, China

Dissertation: "Immobilization of Cellulase for Large Scale Reactors to Reduce Cellulosic Ethanol Cost"
Major Advisor: Dr. James Palmer

Summer Commencement 2016**DOCTOR OF PHILOSOPHY****Riddhi Jitendra Shah, Pune, India**

Dissertation: "Genome Engineering in Mammalian Cells by F1p and Cre DNA Recombinase Variants"
Major Advisor: Dr. Yuri Voziyanov

DOCTOR OF BUSINESS ADMINISTRATION**Joanne T. Cao, Biloxi, MSS**

Dissertation: "When Customers Behave Badly: Psychological Antecedents and Dynamics of Value Co-Destruction in Service Experiences"
Major Advisor: Dr. Bruce L. Alford and Dr. Barry Babin

Nina Lisa Theresa Eileen Krey, Berlin, Germany

Dissertation: "Enough is Enough! Understanding Environmentally Driven Multisensory Experiences"
Major Advisor: Dr. Barry J. Babin

DOCTOR OF PHILOSOPHY**Bharati Bhaskar Belwalkar, Mumbai, India**

Dissertation: "Reinventing Proactive Personality: A New Construct and Measurement"
Major Advisor: Dr. Jerome Tobacyk (Hooded by Dr. Tilman Sheets)

Terri Kathleen Duck, Loxley, Alabama

MS (2009) University of South Alabama, Mobile, AL
Dissertation: "Assessing Spiritual Bypass in a Clinical Population: Initial Test Construction and Validation"
Major Advisor: Dr. Tony Young (Hooded by Dr. Donna Thomas)

Rebecca Elaine Granda, Miami, FL

Dissertation: "PTSD, Academic Achievement, and College Persistence: The Moderating Effects of Coping Mechanisms and Social Support"
Major Advisor: Dr. Guler Boyraz (Hooded by Dr. Donna Thomas)

Devin Layne Merritt, Idaho Falls, ID

Dissertation: "Chronotype Preference, Partial Sleep Deprivation, and Executive Functions Performance Throughout the Wake-Cycle"
Major Advisor: Dr. Walter Buboltz

DISSERTATION HIGHLIGHTS (SPRING/SUMMER 2016-CONT'D FROM PG 11)**Rose Mary Niles, Caledonia, Ontario, Canada**

Dissertation: "Personal Factors, Domain Specificity, and Risky Decision-Making"
Major Advisor: Dr. Walter Buboltz

Deborah Potisek Simpson, Troy, MI

Dissertation: "Factors Predicting Weight Loss and Weight Regain in Bariatric Surgery Patients"
Major Advisor: Dr. Donna Thomas

Shelley Renee Visconte, Shreveport

Dissertation: "Personality Characteristics Related to Problematic Facebook Use"
Major Advisor: Dr. Mary Livingston

DOCTOR OF PHILOSOPHY**Eric George Borquist, Monroe**

Dissertation: "Experimental Investigation and Numerical Simulations of a Copper
Micro-Channel Heat Exchanger with HFE-7200 Working Fluid"
Major Advisor: Dr. Leland Weiss

Udayabhanu Murthy Jammalamadaka, Hyderabad, Telangana, India

Dissertation: "Nano Clay-Enhanced Calcium Phosphate Cements and Hydrogels for
Biomedical Applications"
Major Advisor: Dr. David Mills

Yihong Jiang, Tianjin, China

Dissertation: "Direct and Inverse Scattering Problem for Domain with Multiple
Corners"
Major Advisor: Dr. Songming Hou

Casey O'Neal Orndorff, High View, WV

Dissertation: "Thermal Analysis In A Triple-Layered Skin Structure With Embedded Vasculature, Tumor,
And Gold Nanoshells"
Major Advisor: Dr. Weizhong Dai

Saba Ramazani, Isfahan, Iran

Dissertation: "Unmanned Vehicles Formation Control in 3D Space and Cooperative Search"
Major Advisor: Dr. Rastko Selmic

Karthik Kumar Tappa, Hyderabad, Telangana, India

Dissertation: "Three-Dimensional Printing and Nanotechnology for Bioactive Enhanced Implantable
Materials"
Major Advisor: Dr. David Mills

Taylor Warren Tarlton, Mesquite, TX

Dissertation: "Studies on the Electrical Transport Properties of Carbon Nanotube Composites"
Major Advisor: Dr. Pedro Derosa

Suvhashis Thapa, Dharan, Nepal

Dissertation: "Investigation of Small-Scale Thermal Recovery and Storage Systems"
Major Advisor: Dr. Leland Weiss

DISSERTATION HIGHLIGHTS (SPRING/SUMMER 2016-CONT'D FROM PG 12)

Brandon Tyler Touchet, Lafayette

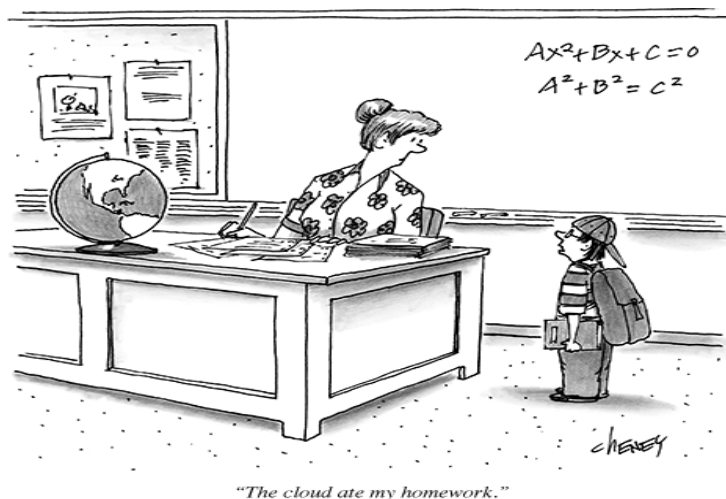
Dissertation: "Classical Renormalization of The Point Charge"
 Major Advisor: Dr. Dentcho Genov

Xuanchen Yan, Nantong, Jiangsu Province, China

Dissertation: "Experimental and Numerical Evaluation of a New Composite Pressure Pipe for a Trenchless Rehabilitation Technology"
 Major Advisor: Dr. David Thomas Iseley

Haibo Zhang, Hubei, China

Dissertation: "Computational Micro-Flow with Spectral Element Method and High Reynolds Number Flow with Discontinuous Galerkin Finite Element Method"
 Major Advisor: Dr. Don Liu



"The cloud ate my homework."

NEW GRANTS AWARDED (CONT'D FROM PAGE 2)

| PI | Title | Funding Agency | \$ Awarded |
|--------------------|---|--|-----------------------------|
| Edward Bell | <i>Preparing Teachers of Blind Students</i> | LDOE | 125,000 |
| Joshua Adams | <i>Treenutri Product Testing</i> | Treenuti, LLC | 10,000 |
| L. Keith-Vincent | <i>ICORE Technology PD for Formal Educators</i> | USDOEdu/JSU | 50,000 |
| N. Wasiuddin | <i>Investigation of New Apical Top Coat Materials</i> | CenturyLink | 23,858 |
| Joshua Adams | <i>Cedar + Garlic Insect Repellent</i> | R.Fewell | 17,168 |
| Adarsh Radadia | <i>SusChem: Optimizing the Directed Self-Assembly of Nanodiamonds</i> | NSF | 343,412 |
| July 2016 | | | Total: 706,939 |
| L. Keith-Vincent | <i>STEM Cyber Course Sequence and Certificate Program</i> | DHS/CIC | 45,000 |
| Bryan McCoy | <i>Mentor Teacher Action Research</i> | La.Dept. Edu | 20,000 |
| Guy Carwile | <i>HABS Drawings - Simon Herold House</i> | La. Dept. of Historic Preservation | 8,725 |
| Donna Hood | <i>Nursing Perkins Basic Grant 2016-17</i> | La. Dept. of Edu/ La. Delta Community College | 32,998 |
| August 2016 | | | Total: 106,723 |
| | | | Total YTD: \$813,662 |