



BREEZE BULLETIN

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

Nothing happens unless first a dream.

*Carl Sandburg
(1878-1967, American Poet)*

TABLE OF CONTENTS

New Grants Awarded 2
 Funding opportunities 2
 Proposals Submitted 3-6
 Additional Grant Funding for Existing Awards 7

FEDERAL RESEARCH & DEVELOPMENT FUNDING FY2011

*Congressional Research Service
 March 23, 2011
 John F. Sargent, Jr., Coordinator*

Summary

President Obama has requested \$147.696 billion for research and development (R&D) in FY2011, a \$343 million (0.2%) increase from the estimated FY2010 R&D funding level of \$147.353 billion. Congress will play a central role in defining the nation's R&D priorities, especially with respect to two overarching issues: the extent to which the federal R&D investment can grow in the context of increased pressure on discretionary spending and how available funding will be prioritized and allocated. Low or negative growth in the overall R&D investment may require movement of resources across disciplines, programs, or agencies to address priorities. This report will be updated as Congress acts on appropriations bills that include funding for research, development and related funding.

Under the President's request, six federal agencies would receive 94.8% of total federal R&D spending: the Department of Defense (DOD, 52.5%), Department of Health and Human Services (largely the National Institutes of Health) (21.8%), National Aeronautics and Space Administration (7.4%), Department of Energy (7.6%), National Science Foundation (3.8%), and Department of Agriculture (1.7%). NASA would receive the largest dollar increase for R&D of any agency, \$1.700 billion (18.3%) above its FY2010 funding level. The DOD would receive the largest reduction in R&D funding, \$3.542 billion (4.4%) below its FY2010 level.

President Obama has requested increases in the R&D budgets of the three agencies that were targeted for doubling in the America COMPETES Act and its reauthorization, and by President Bush under his American Competitiveness Initiative using FY2006 R&D funding as the baseline.

In-house Workshops

- **Grants.gov** June 21 @ 2pm/ #1535 Wily Tower
- **Funding Sources** July 26 @ 2pm/#1535 Wily Tower
- **Board of Regents Overview** August 23 @ 2pm/#1535 Wily Tower

Upcoming Deadlines

NSF Career submissions due July 22 to OUR (7/25 on Fastlane).

TECH CLOSURE



**Monday July 4
 Independence Day**

NEW GRANTS AWARDED

PI/Co-PI	Title	Funding Agency	\$ Award-
Steven Jones	<i>REU: Undergraduate Experiences in Micro/Nanoengineering</i>	NSF	290,000
David Gullatt	<i>WALL 10/11/23 Turnaround School Travel</i>	BoR	7,000
Pedro Derosa	<i>LaSPACE: GSRA/Steven Baker</i>	NASA thru LaSPACE	8,333
Melinda Bryan	<i>Asymmetric Directional Microphone Fittings for Individuals With an Asymmetric Hearing Loss</i>	Seimens Hearing Instruments	983.32
Tanya Sims	<i>Increasing Breast Cancer Awareness through Service Learning</i>	Susan G. Komen for the Cure	523.35
M.Tyree/W.Palmer	<i>Downsville Community Forestry Education Program: Tree Identification and Mapping of Bryan Park</i>	La. Dept. of Agriculture & Forestry	3,892
Niel Crews	<i>LaSPACE Fellowship/Matt Hartmann</i>	NASA thru LaSPACE	8,333
March 2011			315,175.6
Edward Bell	<i>Alabama Rehabilitation Training Services</i>	Alabama Dept of Rehab Srvc	60,000
Leland Weiss	<i>CAREER: Ambient Thermal Energy Harvesting for Power Generation</i>	NSF	400,000
Sandra Zivanovic	<i>Surface Plasmon Resonance for Photovoltaic Device Efficiency Aug-</i>	BoR	10,000
Shengnian Wang	<i>Label-free Cell Sorting by Optical Forces and Microfluidics</i>	BoR	10,000
Thea Edwards	<i>Distribution and Physiology of Phytoestrogens</i>	BoR	10,000
G.Beer/L.Keith-Vincent	<i>LA GEAR UP Explorers Camps (Summer Learning Camps)</i>	USDE/LaSIP	227,578
Glenn Beer	<i>LaCAMPS 2011 (Management)</i>	USDE/LaSIP	315,480.5
Schilling/Dornier/Beer	<i>Louisiana Tech/LA GEAR UP Sports Medicine Camp</i>	USDE/LaGEARUP	115,161.5 0
April 2011			1,148,220
Schillinger/Beer	<i>Building Bridges to the Future Camp</i>	USDE/LaSIP	99,562
Pam Moore	<i>Nursing Capitation</i>	ULS/BoR	9,442
Allouche/Alam	<i>Tensile and Flexural Creep Testing of Aqua-Pipe Liner as per Astm D</i>	Sanexen	20,252
Despina Davis	<i>LaSPACE GSRA: Bryan Cox - Integrating Nanowire Magnetic Sensors</i>	NASA/LaSPACE	5,000
Angela Kennedy	<i>Manpower Training in Electronic Health Record (EHR) Use through Community Colleges in the Delta Region</i>	American HIM Assoc. Foundation/DHHS	9,000
Tyree/Dillaway	<i>Metabolic Acclimation and Carbon-use Efficiency of Short-Rotation</i>	BoR	83,911
Allouche/Vaidya/Saber	<i>Design, Fabrication and Testing of a Low Cost, Highly Durable, 'Green' Median Barrier</i>	LTRC	30,000
Jaganathan/Saber	<i>An Ultra Low Cost Wireless Sensor Network for Real-Time Monitoring of Steel Ropes in Cable Stay Bridges</i>	LTRC	30,000
May 2011			287,167
FY 2010-2011 YTD			14,749,92

LINKS TO FINDING RESEARCH FUNDING OPPORTUNITIES

NSF includes Social Sciences, CAREER, etc.: http://www.nsf.gov/funding/pgm_list.jsp?org=NSF&ord=date.

Grants.gov (National Institutes of Health, Dept. of Energy, etc.): http://www.grants.gov/applicants/find_grant_opportunities.jsp.

Infoed/Spin use keyword search (state, federal, & foundation opportunities): http://www.infoed.org/new_spin/spinmain.asp.

Foundation Center (Philanthropy News Digest & Funding Opportunities): <http://foundationcenter.org/pnd/>.

USDA Rural R&D Grants: http://www.rurdev.usda.gov/RD_Grants.html

Bioengineering deadlines (multiple agencies—Stanford School of Medicine web page): http://med.stanford.edu/rmg/funding/funding_digest_05_20_11.html.

PROPOSALS SUBMITTED

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$ Requested
11-209	Allouche, Erez	Patil, K/ Eklund S.	Cleco Biomass/Rodemacher	Cleco Power	25,254
11-210	Stammerjohan, William	Martin, R.	The Effects of Procedural Injustice	The Center for Audit Quality	7,680
11-211	O'Neal, Patrick	Evans, Katie	Quality Control Towards An Integrated System for Cancer Therapeutics	NIH	300,000
11-212	Que, Long		An Integrated Microsystem for Controlled Drug Effects Analysis Using Real-Time Label-Free Electrical Measurement	NSF	358,934
11-213	Que, Long		Enhancing the Energy Harvesting Efficiency: Integrating Nobel Metallic Nanostructures	NSF	397,934
11-214	Wang, Jay		Development of New Technology for Pile Testing and Quality Control During Pile Driving	LTRC	30,000
11-215	Wang, Jay		Erosion and Slope Stability Improvement Using Marsh Grass Partina Alterniflora for Riparian Restoration in Coastal Area of Louisiana	La. Sea Grant Program/Gulf of Mexico	240,688
11-216	Pierce, Latoya	Gollop-Brown, Lou'uan	Cultural Mosaic: An Exploration of the Self and Others	NEH	124,187
11-217	Jaganathan, Arun	Saber, Aziz	An Ultra Low Cost Wireless Sensor Network for Real-Time Monitoring of Steel Ropes in Cable Stay Bridges	LTRC	30,000
11-218	Mills, David	Mainardi, D/ Murray, E.	Louisiana Tech's RET Site: Creating Curricula and Careers Through Collaboration, Inquiry & Innovation	NSF	498,856
11-219	Crews, Niel	Guilbeau, Eric	Feasibility of Isoflux Heating/Sensing for Rapid Pathogen Detection	NIH	290,023
11-220	Crews, Niel		NSTRF Fellowship: Development of a Rapid DNA Analysis System for Space Application & Exploration of Radiation Effects	NASA	66,000
11-221	Allouche, Erez	Vaidya, S./ Saber A.	Design, Fabrication and Testing of a Low Cost, Highly Durable, 'Green' Median Barrier	LTRC	30,000
11-222	Wasiuddin, Nazimuddin		A Simple Absorption Test for Evaluating the Effectiveness of Amine Anti-Strip Additives	LTRC	30,000
11-223	Wasiuddin, Nazimuddin		A Novel Mechanism-based Moisture Susceptibility Test Method for Asphalt Mixes	LTRC	30,000
11-224	Wasiuddin, Nazimuddin		A Simple Performance Test (Sweep Test) for Chip Seal Design (Asphalt-Aggregate Compatibility...)...	LTRC	30,000
11-225	Gourd, Jean		BAIT'D: Biology-inspired Agent-based Insider Threat Detection	DHS	561,293
11-226	Murimi, Mary	Kim, Yeonsoo	Childhood Food Insecurity Assessment from Selected Communities in Maryland and Louisiana: Household Characteristics and Coping Strategies	University of Kentucky Center for Poverty Research	499,947

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

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
11-227	Kennedy, Angela		Manpower Training in Electronic Health Record (EHR) Use through Community Colleges in the Delta Region	American Health Information Management Association Foundation	18,000
11-228	Bell, Edward		Alabama Rehabilitation Training Services	Alabama Dept. of Rehab Svcs	60,000
11-229	Tims, Heath	Turner, Galen	ITEST Strategies: Developing Critical Cyber Skills for North Louisiana Middle School Students	NSF	1,000,000
11-230	Grafton, Tommy	Boyd, Rhonda	North Central Alliance Partners in Prevention	SAMHSA	125,000
11-231	Madden, Diane	Keith-Vincent, Lindsey	Project LESS	La. Environmental Education Commission	2,032
11-232	Liu, Don		Collaborative Research: Flood Risk Modeling of Hurricanes and Storm Surges	BoR/NASA	56,995
11-233	Wang, Shengnian		Electrophoretic Regulating Macromolecule Dynamics for Polymer Flows	ACS	100,000
11-234	Crews, Niel		Travel to NASA Ames Research Center	BoR/TGEF	1,200
11-235	Davis, Despina		LaSPACE GSRA: Bryan Cox - Integrating Nanowire Magnetic Sensors into Microfilters	LaSPACE	5,000
11-236	Keith-Vincent, Lindsey	Beer, Glenn	Project INVEST	La. Dept of Wildlife & Fisheries	25,000
11-237	Murimi, Mary	Kim, Yeonsoo	Improving Lincoln Parish Schools' Food Environment	USDA	299,994
11-238	Beer, Glenn		Monroe City/Ouachita Parish MSP 2011	La Dept. of Edu	30,754
11-239	Gourd, Jean		The Spicule Model: A Visual Malware Identification and Classification Method	DOD	31,612
11-240	Beer, Glenn	Keith-Vincent/ Crews/ Mainardi	IDEA Place & Summer Science Institute & LA GEAR UP Partnership	NASA	51,803
11-241	Crews, Niel		LaSPACE Fellowship/Matt Hartmann	LaSPACE/NASA	8,333
11-242	Smith, James	Merchant, David	Louisiana Project "Providing Real Opportunities for Innovative Learning Experiences (Profile)"	US Dept. of Labor	455,430
11-243	Mahoney, Kevin		Implicit Leadership Theories, Attribution Theory and the Deepwater Horizon Oil Spill: Who Dun Dat	Southern Management Associations	10,000
11-244	Allouche, Erez	Alam, Shaurav	Experimental Evaluation of Soil-Pipe Friction Coefficients for Coated Steel Pipe (Polyurethane, Cement Mortar and Prefabricated Plastic Tape Coating Systems)	Northwest Pipe Corp.	34,770
11-245	Allouche, Erez	Vaidya, Saiprasad	Pickle Jar Test for 'Reactamine Et' - a 100% Solids Aromatic Polyurea Coating Product	Carboline Co.	8,500
11-246	Dai, Weizhong		Mathematical Modeling & Simulation of the Drug Delivery System Using Stents	LBRN	9,150
11-247	Palmer, James	Hegab, Hisham	Advanced Computation & Experimental Approaches for Gas Mist Separators	LA BoR OPT-IN Program (LA EP-SCoR)	50,000

(Cont'd on page 5)

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

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
11-248	Guice, Les		Advanced Certifications & Training for Technology (ACTT)	IWC	1,000,026
11-249	Allouche, Erez	Kunal/Eklund	Development of a Highly Durable "Green" Inorganic Polymer Concrete With Commercial Potential for Sustainable UrbanInfrastructure Projects in the Gulf Coast Region	BoR OPT-IN	70,000
11-250	Atkison, Travis	Turner/Tims	Cyber-ICE: Louisiana Tech's IC ACE in National Security Studies	Office of the Director of National Intelligence	1,978,373
11-251	Merchant, David		First National Bank Bienville Parish	La. Workforce Commission	63,709
11-252	Feng, June	Mills, David	Travel to NSF/NIH for resubmission of CAREER proposal info	BoR/TGEF	2,400
11-253	Turner, Galen	Tims, Heath	Louisiana Tech's Computing Education for the 21st Century Program	NSF	1,000,000
11-254	Weiss, Leland	Hegab H./ O'Neal C.	Materials and Devices for High-Efficiency Solid State Energy Conversion	BoR/EPSCoR	1,680,303
11-255	DeCoster, Mark	Null/Lvov	IGERT: Creative Science and Engineering Through Blending of Artistic, Biological, and Computational Studies (ABCs)	NSF	0
11-256	Allouche, Erez	Alam, Shaurav	Numerical Simulation of Long-Term Strains at Fold Locations in Aqua-Pipe Liner	Sanexen Environmental Sercies, Inc.	9,882
11-257	Leangsuksun, Chokchai	Cahoy, Dexter	SciDAC Institute for Resilience and Fault Tolerance	DOEnergy	875,000
11-258	Moore, Pamela		Nursing Capitation 2010-2011	BoR	9,442
11-259	Zivanovic, Sandra	Genov, Dentcho	Surface Plasmons Concept for Next Generation Solar Cells	US Dept of Energy	681,859
11-260	Allouche, Erez	Alam, Shaurav	Tensile and Flexural Creep Testing of Aqua-Pipe Liner as per Astm D 2990	Sanexen Environmental Svcs, Inc.	10,370
11-261	Allouche, Erez		Alyssa Watts: Experimental Examination of the Resistance of Geopolymer Concrete to Alkali-Silica Reaction (ASR)	BoR/SURE/NSF	5,000
11-262	Feng, June		Measurement of the Cellular ATP, Oxygen Consumption, Glutathionylated and Carbonylated Proteins in Brain and Blood Sample of the Alzheimer's Transgenic Mice	LBRN	16,650
11-263	Edwards, Thea		Effects of Soybean Phytoestrogens on Reproduction of Green Cloverworms	BoR/SURE/NSF	5,000
11-264	Derosa, Pedro		Metha: Supervised Undergraduate Research Experience	BoR/SURE/NSF	5,000
11-265	Derosa, Pedro		Lama: Supervised Undergraduate Research Experience	BoR/SURE/NSF	5,000
11-266	Wick, Collin		Guitierrez: Supervised Undergraduate Research Experience	BoR/SURE/NS	5,000
11-267	Evans, Katie	Watson/Camp	OPES: Making the WeB Work	NSF	199,999
11-268	Derosa, Pedro		Supervised Undergraduate Research Experience	BoR/SURE/NSF	5,000
11-269	Mills, David		Ultrasonic Nebulization as a Tool for Creating Multilayered, Multi-component Anti-Infective Nanocoatings	BoR/SURE/NSF	5,000

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

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
11-270	Mills, David		Novel Electrospun Collagen-Polycaprolactone Composite Scaffolds for Tissue Engineering ...	BoR/SURE/NSF	5,000
11-271	Mills, David		Effects of Various Nanocoatings on Electrospun Scaffolds for Accelerated Wound Healing	BoR/SURE/NSF	5,000
11-272	Shultz, Jeff		Supervised Undergraduate Research Experience (Leleux)	BoR/SURE/NSF	5,000
11-273	Shultz, Jeff		Supervised Undergraduate Research Experience (Stell)	BoR/SURE/NSF	5,000
11-274	Shultz, Jeff		Supervised Undergraduate Research Experience (Ford)	BoR/SURE/NSF	5,000
11-275	Shultz, Jeff		Supervised Undergraduate Research Experience (Johnston)	BoR/SURE/NSF	5,000
11-276	Shultz, Jeff		Supervised Undergraduate Research Experience (Roser)	BoR/SURE/NSF	5,000
11-277	Shultz, Jeff		Supervised Undergraduate Research Experience (Manual)	BoR/SURE/NSF	5,000
11-278	Shultz, Jeff		Supervised Undergraduate Research Experience (Corbin)	BoR/SURE/NSF	5,000
11-279	Shultz, Jeff		Supervised Undergraduate Research Experience (Kajor)	BoR/SURE/NSF	5,000
11-280	Wasiuddin, Nazimuddin		Effectiveness of a Wax-based Warm Mix Additive on Lower Compaction Temperatures Using Suprepave Gyrotory Compactor	BoR/SURE/NSF	5,000
11-281	Paun, Mihaela		AMBER-Applications in Molecular Biology From Economics and Reliability	NSF/CAREER	497,886
11-282	Jaganathan, Arun	Simicevic, Neven	Characterization of Dielectric Properties of Soil for GPR Applications	Underground Imaging Technologies	2,440
11-283	Chiu, Alan	Jones/O'Neal, P./Harbour/Paun	"A Helping Hand" - Curriculum with Neuroprosthetic Applications	NSF	199,952
11-284	Norris, Dave	Guice/Kordal	Louisiana Tech Proof of Concept Center	US Dept. of Commerce - Economic Development Admin.	1,000,000
11-285	Wilson, Chester		Advanced Multi-Species Detection System for RadioNuclides in Drinking Water	PNTS, Inc.	30,000
11-286	Wilson, Chester	Crews, Niel	Compact MEMS Based Coded Aperture Neutron Source & Time of Flight Detection Architecture for Dismount EOD Detection and Classification	PNTS, Inc.	650,000
11-287	DeCoster, Mark	DeCoster, Mark	Low Cost Novel Screening Tools for Evaluating Cancer Drugs Using Tumor Spheroids	NIH	201,207
11-288	Shultz, Jeff	Giorno/Hindmarsh/Wolf/Yule	Improved Learning & Assessment in the Sciences by Incorporating Scientific Abstract Analysis	NSF/TUES	196,194
11-289	Wilson, Chester	Crews, Niel	Louisiana Consortium for the Industrial Use of Lipid-Bearing Micro-Organisms	BoR/DOE/EPSCoR	900,000
11-290	Selmic, Rastko		Flexible Model for Integrated Trust Management Frame Work in Wireless Sensor Networks	DOD/Army Research Office	89,730

ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS

- M. O'Neal, PROVIDING MANAGERIAL EXPERTISE TO NETWORK FOUNDATION TECHNOLOGIES, Network Foundation Technologies, LLC, \$12,000;
- A. Saber, LOAD DISTRIBUTION AND FATIGUE COST ESTIMATES OF HEAVY TRUCK LOADS ON LOUISIANA STATE BRIDGES, LTRC \$111,652;
- E. Allouche, GEOPOLYMERIZATION POTENTIAL, Cleco Power, Inc., \$40,000;
- E. Allouche, SIPP TESTING, 3M Innovative Properties Company, \$43,000;
- T. McConathy, TRACIE REED SCHOLARSHIP, Grambling State University, \$18,750;
- L. Guice, THE LONI INSTITUTE: ADVANCING BIOLOGY, MATERIALS & COMPUTATIONAL SCIENCES FOR RESEARCH EDUCATION AND ECONOMIC DEVELOPMENT, Board of Regents through LSU \$266,484;
- T. McConathy, DOCTORAL DIVERSITY IN ENGINEERING AND THE SCIENCES AT LOUISIANA TECH UNIVERSITY, Board of Regents \$40,000;
- M. Gibson, MCINTIRE STENNIS FY 11, USDA \$131,117.
- E. Bell, ORIENTATION AND MOBILITY TRAINING, Lincoln Parish School Board \$1,263.

* * *

FEDERAL R&D FUNDING FY2011 (Cont'd from pg. 1)

The Department of Energy's Office of Science would receive an increase of \$226 million (4.6%), the National Science Foundation an increase of \$551 million (8.0%), and the National Institute of Standards and Technology's core research and facilities an increase of \$48 million (7.3%).

As of the end of the 111th Congress, no regular appropriations bill had been enacted by Congress. Two of the 12 regular appropriations bills had passed the House (the Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2011, and the Military Construction and Veterans Affairs and Related Agencies Appropriations Act, 2011); none had passed the Senate. To provide for continuity of government operations into FY2011, on September 29, 2010, the Senate passed a continuing resolution (H.R. 3081) providing funding for federal agencies through December 3, 2010, including their R&D activities, "at a rate for operations as provided in the applicable appropriations Acts for fiscal year 2010 and under the authority and conditions as provided in such acts." On September 30, 2010, the House passed H.R. 3081 and President Obama signed it into law (P.L. 111-242). Five subsequent continuing resolutions (CRs) have extended funding through December 18, 2010 (P.L. 111-290), December 21, 2010 (P.L. 111-317), March 4, 2011 (P.L. 111-322), March 18, 2011 (P.L. 112-4), and April 8, 2011 (P.L. 112-6). On February 19, 2011, the House passed H.R. 1, a full-year CR that would also make a number of reductions to specific agencies and programs from their FY2010 levels.

For the past four years, federal R&D funding and execution has been affected by mechanisms used to complete the annual appropriations process—the year-long continuing resolution for FY2007 (P.L. 110-5) and the combining of multiple regular appropriations bills into the Consolidated Appropriations Act, 2008 for FY2008 (P.L. 110-161), the Omnibus Appropriations Act, 2009 (P.L. 111-8), and the Consolidated Appropriations Act, 2010 (P.L. 111-117). Completion of appropriations after the beginning of each fiscal year may cause agencies to delay or cancel some planned R&D and equipment acquisition.

For more information on this article, go to <http://www.fas.org/sgp/crs/misc/R41098.pdf> (copy & paste link into browser).

* * *