



ADVANCING RESEARCH | CREATING SOLUTIONS

September 24, 2007

The Great Plains Network

- 1. **Latest News**1
- 2. **GPN Representative Profile**1
- 3. **Campus Notes**1
- 4. **Funding Opportunities from NSF** ...2
- 5. **Recent Awards**3
- 6. **Upcoming Meetings**18
- 7. **Subscription Information**18

By Dena Bunnel, Member Coordinator

1. Latest News

GPN and Disaster Management - Recent events of the last two years have made the issues of disaster preparedness and disaster management much more prominent in our community. Not surprisingly, the topic of disaster management was one of the first discussed on the regular GPN Representative Council teleconferences that began about a year ago. At GPN2007 in Kansas City, Del Johnson (Representative Council member from South Dakota State) led a roundtable discussion on DM: The outcome of that discussion was a recommendation for a focused DM meeting to learn about technologies and explore partnership opportunities that GPN could facilitate in the DM realm. Scott Silverstein from our corporate affiliate, CIENA, has put together a workshop, to be held September 25 and 26 in Omaha, NE, for GPN members. CIENA, IBM and others will be contributing to the meeting. There will be participation from attendees and recommendations for GPN support of member efforts in the DM realm.

[Register here.](#)

GPN2007 Proves a Success - The 2007 annual meeting of the Great Plains Network

was held May 30 - June 1, and showed a great member turnout. The meeting, titled *GPN2007: Markers, Milestones and New Directions*, showcased a number of great speakers and workshops. Slides from those presentations can be found on the GPN Wiki or by following the link above. A big thanks also goes to our corporate affiliates, Adva, Ciena, and Fujitsu, as well as two sponsors, Force10 Networks and Nortel Networks.

2. GPN Representative Profile

Kansas State University



James Lyall

K-State Associate Vice Provost for Academic Services and Technology

James Lyall oversees K-State's campus network and computing infrastructure, develops academic applications and manages information and computer security.

Lyall comes to K-State from Colorado State University, where he served most recently as the Director of Information and Instructional Technology for the College of Applied Human Sciences. He also has held a variety of positions at both the University and departmental levels at Colorado State for the past 12 years.

Lyall holds an interdisciplinary Ph.D. through the School of Education from CSU. Lyall originally hails from Missouri.

3. Campus Notes

Supercomputer coming to Peter Kiewit Institute - A supercomputer that could

potentially be the world's 10th most-powerful computer when finished will soon to be installed on the University of Nebraska at Omaha's campus. The supercomputer will lure companies to Omaha that need serious computing power.



The computing center is being paid for in part by a \$4.5 million donation, the vast majority from Omaha philanthropist Richard Holland. Further costs will be paid through a slew of as-yet-unannounced corporate partnerships.

UA Researchers Using Arkansas' First Supercomputer - Researchers at the University of Arkansas have already produced results using Red Diamond, the state's first supercomputer, and they have plans for more - developing the molecular structures of potential new drugs, examining tornados and volcanoes, and modeling global climate change. The machine boasts a cluster of 128 dual-processor computers and operates approximately 256 times faster than the typical new desktop computer.



"Red Diamond will help solve some of the most challenging science and engineering problems in the world today," said Amy Apon, a UA associate professor of computer science and engineering and the leader of the effort to bring the supercomputer to the university. "UA researchers have already used Red Diamond to calculate the molecular structure of new nanomaterials."

Researchers Create Model of Cancer-Preventing Enzyme, Study How It Works - Several researchers from GPN universities have been working with the protein proline dehydrogenase to study ways to prevent the development and spread of cancer. Tommi A. White, an MU doctoral student in biochemistry, John J. Tanner, professor of chemistry and biochemistry in MU's College of Arts and Science, Navasona Krishnan, a doctoral student at the University of Nebraska-Lincoln and Donald F. Becker, an associate professor at the University of Nebraska-Lincoln, worked together to create the first model of proline dehydrogenase. Because the human form of this enzyme is difficult to work with, the team studied proline dehydrogenase from the bacteria *Thermus thermophilus*. They used bioinformatics and biochemical studies to show that this enzyme is functionally similar to the human version, so their results can be generalized to the human version, as well as the bacterial version.

4. Funding Opportunities from the National Science Foundation

ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers - Full Proposal: December 6, 2007; January 17, 2008

Advanced Technological Education (ATE) - Full Proposal: October 11, 2007

Biological Research Collections (BRC) - Full Proposal: July 25, 2008

Broadening Participation in Computing (BPC) - Full Proposal: May 21, 2008



September 24, 2007

Communicating Research to Public Audiences - Full proposals accepted anytime

Computational Science Training for Undergraduates in the Mathematical Sciences (CSUMS) - Full Proposal: October 17, 2007

Computer Systems Research (CSR) - Full Proposal: November 9, 2007

Cyber Trust (CT) - Full Proposal: November 14, 2007

Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences (DDIG) - Full Proposal: November 16, 2007

Graduate Research Fellowship Program (GRFP) - Full Proposal Deadline Dates: November 1, 2007 - Interdisciplinary Fields of Study; November 2, 2007 - Mathematical Sciences, Computer and Information Sciences and Engineering; November 6, 2007 - Social Sciences, Psychology, Geosciences; November 7, 2007 - Life Sciences; November 8, 2007 - Engineering; November 9, 2007 - Chemistry; Physics and Astronomy

High Performance Computing System Acquisition: Towards a Petascale Computing Environment for Science and Engineering - Full Proposal: November 30, 2007

Information and Intelligent Systems: Advancing Human-Centered Computing, Information Integration and Informatics, and Robust Intelligence - Full Proposal: November 19, 2007

Information Technology and Infrastructure Systems - Full Proposal: October 1, 2007; February 15, 2008

Information Technology Experiences for Students and Teachers (ITEST) - Preliminary Proposal: January 4, 2008; Full Proposal: May 8, 2008

Innovation and Organizational Change (IOC) - Full Proposal: February 2, 2008

Integrative, Hybrid & Complex Systems (IHCS) - Full Proposal: October 7, 2007; February 7, 2008; Supplement: April 1, 2008

NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) - Letter of Intent: October 10, 2007; Full Proposal: November 13, 2007

Postdoctoral Research Fellowships in Biology - Full Proposal: November 5, 2007

Research in Undergraduate Institutions (RUI) - Full proposals accepted anytime

Scientific Computing Research Environments for the Mathematical Sciences (SCREMS) - Full Proposal: January 24, 2008

Strategic Technologies for Cyberinfrastructure (STCI) - Full Proposal: February 14, 2008

Undergraduate Research and Mentoring in the Biological Sciences (URM) - Preliminary Proposal: September 18, 2007; Full Proposal: March 4, 2008

5. Recent Awards

NSF: Here are the new NSF awards that were registered between January and September, 2007.

Arkansas

Start Date: 01/01/2007; **Adams, Paul;** RIG: Biophysical Characterization of Cdc42Hs Forms Associated with Cell Transformation; University of Arkansas; \$149,233; (726004).

Start Date: 04/01/2007; **Adams, Paul;** Research Starter Grant; University of Arkansas; \$50,000; (637041).

Start Date: 04/01/2007; **Beaupre, Steven;** CRB: Physiological and Thermoregulatory Responses of a Top Predator to Large-Scale Habitat Manipulations; University of Arkansas; \$106,981; (641117).

Start Date: 02/15/2007; **Buyurgan, Nebil;** Integrated Auto-ID Technology for



Multidisciplinary Undergraduate Studies (I-ATMUS); University of Arkansas; \$149,709; (633334).

Start Date: 08/15/2007; **Desrochers, Patrick**; RUI: Reactivity, Spectroscopic, and Sensing Properties of Nickel Complexes on Solid Organic Supports; University of Central Arkansas; \$109,036; (717213).

Start Date: 08/01/2007; **Di, Jia**; Collaborative Research: Integrating Asynchronous Digital Design into the Undergraduate Computer Engineering Curriculum throughout the Nation; University of Arkansas; \$377,438; (717572).

Start Date: 07/01/2007; **Evans, Christine**; STTR Phase I: Oral Cancer Detection Using Redox Magneto-hydrodynamic Microfluidics-based Bioassay Chips; SFC Fluidics, LLC; \$150,000; (712204).

Start Date: 08/15/2007; **Fritsch, Ingrid**; Redox Magnetoconvection of Solution in Small-Scale Electrochemical Systems; University of Arkansas; \$470,000; (719097).

Start Date: 03/01/2007; **Gordon, Matthew**; REU Site - Summer Internships in Nanomaterials and Nanomechanics; University of Arkansas; \$247,885; (648874).

Start Date: 11/01/2007; **Green, Steven**; MRI: Acquisition of Biogeochemical Analytical Instrumentation for Enhanced Interdisciplinary Research and Training at Arkansas State University; Arkansas State University; \$190,835; (722701).

Start Date: 07/01/2007; **Horax, Ronny**; SBIR Phase I: Controlled Fermentation of Rice Bran for Production of Phenolic Compounds; Nutraceutical Innovations, LLC; \$100,000; (711817).

Start Date: 05/01/2007; **Jansma, Pamela**; Track 1: Research Mentoring in Geospatial Applications and the Development of Strategic Partnerships to Increase Diversity in the Geosciences; University of Arkansas; \$98,147; (703790).

Start Date: 07/01/2007; **Jones, Johnny**; Planning Grant Arkansas Baptist College STEM Program; Arkansas Baptist College; \$49,992; (714973).

Start Date: 09/01/2007; **Kim, Jin-Woo**; NER: Exploration of DNA-Based Nanoscale Building Block (DNAnBLOCK) for Controllable and Scalable Fabrication of Active Nanostructures; University of Arkansas; \$115,000; (709121).

Start Date: 07/01/2007; **Lanzani, Loredana**; Singular Integrals on Non-Smooth Domains in Real and Complex Analysis; University of Arkansas; \$131,543; (700815).

Start Date: 03/01/2007; **Lehmann, Michael**; Function of Cell Identity Factors in Tissue-Specific Programmed Cell Death; University of Arkansas; \$330,000; (641347).

Start Date: 04/01/2007; **Lupashin, Vladimir**; Functional Analysis of the Conserved Oligomeric Golgi (COG) Complex in Yeast; University of Arkansas Medical Sciences; \$156,624; (645163).

Start Date: 04/01/2007; **Lusth, John**; CCLI: Preparing At-Risk Students for CS1 and Calculus; University of Arkansas; \$138,301; (633290).

Start Date: 07/15/2007; **Madison, Bernard**; Quantitative Reasoning in the Contemporary World; University of Arkansas; \$392,597; (715039).

Start Date: 07/15/2007; **Mantooth, Homer**; MRI: Acquisition of Unique, High-Power Instrumentation for Future Distribution Systems Test and Evaluation; University of Arkansas; \$370,000; (723195).

Start Date: 08/01/2007; **Mason, Scott**; Collaborative Research: A TIE Research Program on E-Design for Design for Supply Chain; University of Arkansas; \$25,000; (733125).

Start Date: 08/15/2007; **McClure, Gail**; RII: Arkansas ASSET Initiative; Arkansas



September 24, 2007

Science & Technology Authority; \$6,000,000; (701890).

Start Date: 08/01/2007; **Meller, Russell;** Collaborative: CELDi Renewal; University of Arkansas; \$94,000; (732686).

Start Date: 07/01/2007; **Pinto, Ines;** The Hda1 Complex and Centromere Function in Budding Yeast; University of Arkansas; \$135,000; (642189).

Start Date: 07/01/2007; **Plavcan, J. Michael;** Postcranial Dimorphism in Primates; University of Arkansas; \$79,888; (647557).

Start Date: 06/01/2007; **Redeker, Kelly;** The Accelerated Research into the Science of the Environment (ARISE) Program; a Phase I project proposal; Arkansas State University; \$55,785; (703701).

Start Date: 05/01/2007; **Salamo, Gregory;** Engineering the Linear and Nonlinear Optical Properties of Periodic Waveguide Arrays; University of Arkansas; \$101,710; (702187).

Start Date: 07/01/2007; **Salamo, Gregory;** Workshop to Develop an EPSCoR Consortium to lead the Nation on the Underlying Science and Engineering of Nano Ferroelectric Materials and Devices; University of Arkansas; \$44,676; (729757).

Start Date: 07/01/2007; **Stephenson, Steven;** U.S.-Thailand Planning Visit: Assemblages of Myxomycetes and Fungi Associated with a Number of Aerial Microhabitats in the Tropical Forests of Thailand; University of Arkansas; \$10,505; (701464).

Start Date: 7/1/2007; **Su, Xiao-Li;** STTR Phase I: Engineered Bacteriophage Based Biosensor for Rapid Detection of Viable Foodborne Pathogens; BIODETECTION INSTRUMENTS LLC; \$150,000; (711846).

Start Date: 7/1/2007; **Thompson, Dale;** CT-ER: Anti-Counterfeiting RFID Tags; University of Arkansas; \$143,819; (716578).

Start Date: 8/1/2007; **Varadan, Vasundara;** IRES: International Research Experience for Students at the Indian Institute of Science for the Development of Tunable Microwave Metamaterial Devices; University of Arkansas; \$131,250; (728235).

Start Date: 7/1/2007; **Wang, Yunjun;** SBIR Phase I: High-efficiency and Stable Nanocomposite Light Emitting Diode; Mesolight LLC; \$100,000; (711190).

Start Date: 7/1/2007; **Wang, Yunjun;** SBIR Phase I: Radial-position Controlled Lanthanide Doped Nanocrystals as Time-resolved Fluorescence Imaging Agents; Mesolight LLC; \$100,000; (711838).

Start Date: 9/1/2007; **Wigand, Rolf;** Collaborative Research: Interorganizational Information System Integration Through Industry-wide Standardization: Technical Design Choices and Collective Action Dilemmas; University of Arkansas Little Rock; \$297,882; (704978).

Start Date: 7/1/2007; **Xiao, Min;** Controlling Nonlinear and Quantum Dynamics in Multi-Level Coherent Media; University of Arkansas; \$176,000; (652970).

Start Date: 3/1/2007; **Zhang, Sulin;** CAREER: Multiscale Modeling of Nanoparticle-Cell Interactions; University of Arkansas; \$401,000; (644599).

Start Date: 9/1/2007; **Zou, Min;** CAREER: Nano-Engineered Surfaces: Fabrication and Mechanical and Tribological Properties; University of Arkansas; \$406,993; (645040).

Kansas

Start Date: 10/1/2007; **Bai, Yong;** U.S.-China Workshop: Rapid Bridge Replacement after Extreme Events; University of Kansas Center for Research Inc; \$33,660; (728954).

Start Date: 10/1/2007; **Bai, Yong;** SGER: Development of Human Poses for the Determination of on-site Construction Productivity in Real Time; University of



Kansas Center for Research Inc; \$10,000; (741374).

Start Date: 6/1/2007; **Baringer, Philip**; Research Program in Experimental Elementary Particle Physics; University of Kansas Center for Research Inc; \$415,000; (653250).

Start Date: 3/15/2007; **Brown, Rafe**; Collaborative Research: Comparative Biogeography of Sulawesi - Phylogenetic and Coalescent Analyses of Diversification in Frogs, Lizards, and Monkeys; University of Kansas Center for Research Inc; \$86,609; (640737).

Start Date: 7/1/2007; **Burford, Dwight**; Collaborative Friction Stir Processing; Wichita State University; \$100,000; (710914).

8/15/2007; **Caragea, Doina**; Collaborative Research: Learning Classifiers From Autonomous, Semantically Heterogeneous, Distributed Data; Kansas State University; \$46,297; (711396).

Start Date: 3/15/2007; **Denell, Robin**; Evolution of Genetic Mechanisms Controlling Developmental Fate; Kansas State University; \$140,000; (646889).

Start Date: 9/1/2007; **Edgar, James**; ARI-SA: Boron-rich semiconductors for neutron detectors; Kansas State University; \$134,565; (736154).

8/1/2007; **Epp, Charles**; Doctoral Dissertation Research - The Face of the State: The Role of Social Status and Official Position in the Mobilization of Authority; University of Kansas Center for Research Inc; \$7,997; (715298).

Start Date: 8/1/2007; **Gehrke, Stevin**; Collaborative Research: Sclerotization Mechanisms that Control Physical Properties of Insect Cuticle; University of Kansas Center for Research Inc; \$306,180; (726412).

Start Date: 6/1/2007; **Ginther, Donna**; Collaborative Research: Workshop on linking NSF SED/SDR Data to Scientific

Productivity; University of Kansas Center for Research Inc; \$15,641; (725475).

Start Date: 9/1/2007; **Gogineni, S. Prasad**; IPY: Collaborative Proposal: Constraining the Mass-Balance Deficit of the Amundsen Coast's Glaciers; University of Kansas Center for Research Inc; \$134,951; (631994).

Start Date: 3/15/2007; **He, Bingrong**; SBIR Phase II: A Quality Monitor for Enabling Water Recycling in Semiconductor Processing - The Particle Scout; Uncopiers, Inc.; \$512,000; (646557).

Start Date: 3/1/2007; **Heppert, Joseph**; REU Site: A Summer Experience for Undergraduates Integrating Research, Education, and Career Development in an Interdisciplinary Environment; University of Kansas Center for Research Inc; \$79,764; (649246).

Start Date: 8/1/2007; **Herman, Michael**; En-Gen: Ecological Genomics of Soil Nematode Community Responses: Model and Non-Model Approaches; Kansas State University; \$622,598; (723862).

Start Date: 8/1/2007; **Isakov, Victor**; Some inverse problems in elasticity, option pricing, semiconductors, and scattering theory; Wichita State University; \$85,077; (707734).

Start Date: 8/1/2007; **Johnson, Carey**; Conformational Dynamics and the Energy Landscape of Calmodulin; University of Kansas Center for Research Inc; \$156,300; (710515).

Start Date: 8/1/2007; **Kanost, Michael**; Collaborative Research: Sclerotization Mechanisms that Control Physical Properties of Insect Cuticle; Kansas State University; \$654,004; (726425).

Start Date: 8/1/2007; **Keyton, Joann**; Doctoral Dissertation Research in DRMS: An Interaction Analysis of Meeting Activities and Functions Across Three Natural Meeting Contexts; University of Kansas Center for Research Inc; \$6,250; (717643).



September 24, 2007

Start Date: 10/1/2007; **Korten, Marianne;** [Prairie Analysis Seminar 2007](#); Kansas State University; \$15,034; (735926).

Start Date: 5/1/2007; **Laird, Claude;** [IPY: Collaborative Research: The NEEM Deep Ice Core](#); University of Kansas Center for Research Inc; \$88,752; (632105).

Start Date: 7/1/2007; **Lankarani, Hamid;** [Collaborative Research: Performance Evaluation of Child Safety Seats in Lateral Sled Tests at Varying Speeds](#); Wichita State University; \$40,000; (729045).

Start Date: 8/15/2007; **Lieberman, Bruce;** [Collaborative Research: REVSYS: Revisionary Systematics of Cheirurid Trilobites](#); University of Kansas Center for Research Inc; \$71,000; (716162).

Start Date: 7/1/2007; **Ludvigson, Greg;** [Collaborative Research: Actualistic Calibration of the Sphaerosiderite Paleoclimate Proxy](#); University of Kansas Center for Research Inc; \$254,680; (643334).

Start Date: 1/1/2008; **MacDonald, Teresa;** [Understanding the Tree of Life](#); University of Kansas Center for Research Inc; \$250,000; (715287).

Start Date: 6/1/2007; **Miller, James;** [Collaborative Research: A Virtual Reality Laboratory and Curriculum for Undergraduates](#); University of Kansas Center for Research Inc; \$46,490; (633016).

Start Date: 6/15/2007; **Mort, Mark;** [DISSERTATION RESEARCH: The Evolution and Phylogeography of the Alternifolium group of the Flowering Plant Genus Chrysosplenium](#); University of Kansas Center for Research Inc; \$6,842; (710371).

Start Date: 8/1/2007; **Niehaus, Douglas;** [CT-ISG: Collaborative Research: Non-bypassable Kernel Services for Execution Security](#); University of Kansas Center for Research Inc; \$100,000; (716740).

Start Date: 8/1/2007; **Oh, Myunghyun;** [Stability and Spectral Theory](#); University of

Kansas Center for Research Inc; \$122,737; (708554).

Start Date: 8/1/2007; **Ou, Xinming;** [CT-ISG: Model-based, Automatic Network Security Management](#); Kansas State University; \$140,000; (716665).

6/1/2007; **Pei, Zhijian;** [Workshop: NSF Proposal Writing Workshop; August 20-21, 2007](#); University of Alaska; Fairbanks, Alaska; Kansas State University; \$48,535; (734836).

Start Date: 8/1/2007; **Rezac, Mary;** [Center for Biofuels Research and Development](#); Kansas State University; \$10,000; (733986).

Start Date: 4/15/2007; **Robby, -;** [CAREER: A Formal, Integrated Analysis Framework for Contract-based Reasoning of Strong Properties of Open Systems](#); Kansas State University; \$160,014; (644288).

Start Date: 7/15/2007; **Robby, ;** [Collaborative Research: CRI: CRD: A JML Community Infrastructure -- Revitalizing Tools and Documentation to Aid Formal Methods Research](#); Kansas State University; \$220,000; (709169).

Start Date: 6/15/2007; **Ryabogin, Dmitry;** [FRG: Collaborative Research: Fourier analytic and probabilistic methods in geometric functional analysis and convexity](#); Kansas State University; \$165,000; (652672).

Start Date: 8/15/2007; **Schrodt, Philip;** [Support for Conferences and Mentoring Activities in Political Methodology](#); University of Kansas Center for Research Inc; \$245,388; (720343).

Start Date: 8/15/2007; **Scurto, Aaron;** [Understanding Interfacial Mass Transport Phenomena in Biphasic Ionic Liquid Systems with Organic Solvents and Compressed CO₂](#); University of Kansas Center for Research Inc; \$235,906; (731244).

Start Date: 6/1/2007; **Stefanov, Atanas;** [Harmonic Analysis and Nonlinear Dispersive Equations](#); University of Kansas Center for Research Inc; \$114,000; (701802).



Start Date: 4/15/2007; **Templin, Jonathan;** Collaborative Research: Constrained Finite Mixture Models for Psychological Diagnosis and Educational Assessment; University of Kansas Center for Research Inc; \$48,418; (648876).

Start Date: 9/1/2007; **Timmons, Lisa;** MRI: Acquisition of COPAS Instrumentation for Research and Teaching Enhancement in Kansas Universities; University of Kansas Center for Research Inc; \$226,000; (723193).

Start Date: 6/1/2007; **Ting, Alison;** NSF East Asia Summer Institutes for US Graduate Students; Ting, Alison Y.; \$4,579; (714383).

Start Date: 3/15/2007; **Walker, J. Douglas;** Workshop Support: Envisioning a National Geoinformatics System for the United States; Denver, CO; University of Kansas Center for Research Inc; \$53,384; (725998).

Start Date: 7/1/2007; **Walker, J. Douglas;** Collaborative Research: Volcanic Material in Triassic Sedimentary Units of Southwestern North America: Understanding the Initiation of Arc Magmatism; University of Kansas Center for Research Inc; \$56,378; (711107).

Start Date: 4/1/2007; **Weatherley, Laurence;** Water Management in PEM Fuel Cells by Material Engineering; University of Kansas Center for Research Inc; \$270,244; (651758).

Start Date: 8/15/2007; **Weatherley, Laurence;** Center for BioFuel Research and Development; University of Kansas Center for Research Inc; \$10,000; (733879).

Missouri

Start Date: 8/1/2007; **Al-Assadi, Waleed;** Collaborative Research: Integrating Asynchronous Digital Design into the Undergraduate Computer Engineering Curriculum throughout the Nation; University of Missouri-Rolla; \$122,561; (717767).

Start Date: 3/1/2007; **Amend, Jan;** Collaborative Research: Microbial Ecology of Ocean Basement Aquifers: ODP Borehole Observatories; Washington University; \$49,979; (604203).

Start Date: 7/1/2007; **Angenent, Lars;** CAREER: Microbial fuel cell technology for large-scale wastewater treatment; Washington University; \$406,250; (645021).

Start Date: 7/1/2007; **Bermudez, Jose;** U.S.-China Joint Workshop on Memory and Language: Interdisciplinary Perspectives; Washington University; \$28,100; (726257).

Start Date: 7/1/2007; **Birchler, James;** Genetic Studies of Gene Silencing in *Drosophila*; University of Missouri-Columbia; \$75,000; (641204).

Start Date: 9/1/2007; **Birchler, James;** Maize Artificial Chromosomes; University of Missouri-Columbia; \$335,167; (701297).

Start Date: 6/1/2007; **Blankenship, Robert;** A New Class of Integral Membrane Oxidoreductases; Washington University; \$195,308; (646621).

Start Date: 6/1/2007; **Blum, Frank;** Dynamics in Interfacial Polymer Systems; University of Missouri-Rolla; \$362,505; (706197).

Start Date: 6/15/2007; **Bourne, Godfrey;** DISSERTATION RESEARCH: Closing the seed dispersal loop for *Guettarda viburnoides*: Connecting patterns of avian seed dispersal with population growth in a Neotropical savanna; University of Missouri-Saint Louis; \$11,460; (709753).

Start Date: 7/1/2007; **Browman, David;** Doctoral Dissertation Improvement Grant: Traditions in the Ozark Highlands; Washington University; \$14,925; (731401).

Start Date: 7/1/2007; **Casazza, Peter;** Applications of frames to speech recognition, distributed processing, biomedical engineering and more; University of Missouri-Columbia; \$107,488; (704216).



September 24, 2007

Start Date: 4/1/2007; **Chalker, Douglas;** RNA-Guided Genome Rearrangement of Tetrahymena; Washington University; \$138,500; (642162).

Start Date: 9/1/2007; **Chamberlain, Roger;** CSR---AES: Application Development for Architecturally Diverse Computing Systems; Washington University; \$80,000; (720667).

Start Date: 7/15/2007; **Chase, Jonathan;** Dissertation Research: Predator-dependent Species-area Relationships in Ozark Glades; Washington University; \$9,913; (709758).

Start Date: 9/1/2007; **Chen, Da-Ren;** MRI: Acquisition of Aerodyne High-Resolution, Time-of-Flight Aerosol Mass Spectrometer; Washington University; \$400,000; (722811).

Start Date: 9/1/2007; **Chen, Yixin;** Planning with Complex Constraints and Preferences by Nonlinear Programming and Constraint Partitioning; Washington University; \$255,673; (713109).

Start Date: 5/1/2007; **Chen, Zhen;** Group Travel Support for the International Conference on Smart Materials and Nanotechnology; Harbin, China July 1-4, 2007; University of Missouri-Columbia; \$24,000; (725403).

Start Date: 9/1/2007; **Cheverud, James;** Collaborative Research: Human Origins and the Molecular Genetic Basis of Craniofacial Evolution; Washington University School of Medicine; \$134,502; (725068).

Start Date: 2/15/2007; **Clark, Deborah;** Long-term Annual Performance of Tropical Rainforest Trees: a Cross-scale Analysis; University of Missouri-Saint Louis; \$85,509; (640206).

3/15/2007; **Cone, Karen;** Conference: 49th Annual Maize Genetics Conference to be held in St. Charles, IL on March 22-25, 2007; University of Missouri-Columbia; \$34,650; (710254).

Start Date: 5/1/2007; **Crow, Mariesa;** Multiple FACTS Device Coordination Using Synchronized Wide Area Measurements;

University of Missouri-Rolla; \$155,377; (701643).

Start Date: 5/1/2007; **Crowley, Patrick;** Support for the Symposium on Architectures for Networking and Communications Systems; Washington University; \$10,000; (642024).

Start Date: 9/1/2007; **Damschen, Ellen;** How Landscape Connectivity and Heterogeneity Affect Wind Dispersal; Washington University; \$50,000; (733746).

Start Date: 7/1/2007; **Dickhoff, Willem;** Green's Functions and The Nuclear Many-Body Problem; Washington University; \$80,733; (652900).

Start Date: 8/15/2007; **DuBroff, Richard;** Electromagnetic Compatibility Center -- An Industry/University Cooperative Research Collaboration; University of Missouri-Rolla; \$10,000; (732424).

Start Date: 11/1/2007; **Fan, Xudong;** EXP-SA: Development of highly sensitive ultrafast micro gas chromatography for explosive detection; University of Missouri-Columbia; \$400,000; (729903).

Start Date: 9/15/2007; **Fried, Eliot;** Influence of interfacial stress on the stability of epitaxial films; Washington University; \$202,376; (706460).

Start Date: 6/1/2007; **Furbee, N. Louanna;** Tojolabal (SIL CODE: toj) (Maya) Language Documentation Project; University of Missouri-Columbia; \$240,844; (650942).

Start Date: 6/1/2007; **Galen, Candace;** DISSERTATION RESEARCH: The impacts of partner abundance and niche breadth on benefits from mutualisms: Tracing outcomes from individuals to populations; University of Missouri-Columbia; \$11,420; (709833).

Start Date: 8/15/2007; **Gassmann, Walter;** Mechanism of Arabidopsis Pathogen Defense Regulation by the Novel TPR Protein SRFR1; University of Missouri-Columbia; \$183,462; (715926).



Start Date: 8/1/2007; **Gelb, Lev**; First-principles Monte Carlo simulations of fluid phase equilibria at extreme conditions; Washington University; \$143,461; (718861).

Start Date: 9/1/2007; **Ghosh, Kartik**; MRI-RUI: Acquisition of a SQUID Magnetometer for Materials Science Research and Education; Missouri State University; \$353,252; (723105).

Start Date: 8/1/2007; **Gill, Christopher**; CT-ISG: Collaborative Research: Non-bypassable Kernel Services for Execution Security; Washington University; \$100,000; (716764).

Start Date: 8/1/2007; **Goldman, Kenneth**; CPATH T: Active Learning for Transformation of the Undergraduate Experience; Washington University; \$562,987; (722328).

Start Date: 7/1/2007; **Han, Xuliang**; STTR Phase I: Development of High-Speed Infrared-Transparent Flexible Transistors Using Electronic-Grade Carbon Nanotube Solutions; Brewer Science Incorporated; \$150,000; (712095).

Start Date: 1/1/2007; **Hill, Tim**; STTR Phase I: Rapid Freeze Prototyping of Investment Cast Thin Wall Metal Matrix Composites; O'Fallon Casting; \$149,990; (637556).

Start Date: 3/1/2007; **Holten, Dewey**; Primary Electron Transfer Processes in Photosynthetic Bacterial Reaction Centers; Washington University; \$190,666; (614529).

Start Date: 6/1/2007; **Hu, Zhiqiang**; Nitrification Inhibition by Silver Nanoparticles; University of Missouri-Columbia; \$84,000; (650943).

Start Date: 6/1/2007; **Hunt, James**; Collaborative Research: Using Comparative Genomics to Study the Evolution of Social Behavior; University of Missouri-Saint Louis; \$14,547; (641120).

Start Date: 9/1/2007; **Jorgensen, Peter**; REVSYS Collaborative Research: Untangling

the Passionflower Vines: Phylogeny, Species Diversification, and Character Evolution in *Passiflora* Ssubg. *Decaloba* (Passifloraceae); Missouri Botanical Garden; \$70,124; (717115).

Start Date: 8/1/2007; **Ju, Tao**; III-CXT: Collaborative Research: Integrated Modeling of Biological Nanomachines; Washington University; \$165,000; (705538).

Start Date: 9/1/2007; **Ju, Tao**; Geometric Modeling for Spatial Analysis of Bio-Medical Data; Washington University; \$95,280; (702662).

Start Date: 7/15/2007; **Kim, Pauline**; The Litigation Process in Government-Initiate Employment Discrimination Suits; Washington University; \$213,999; (718831).

Start Date: 6/1/2007; **Kirschner, David**; Collaborative Research: Influence of Structure, Composition and Fluid-Rock Chemistry on Mode of Slip in the San Andreas Fault Zone at SAFOD; Saint Louis University; \$38,845; (643223).

Start Date: 9/1/2007; **Koff, Robert**; RDE-DEI: Developing and Evaluating a Peer Led Team Learning Curriculum in Calculus and Chemistry for Undergraduate Students with Learning and Attention Disabilities; Washington University; \$100,000; (726664).

Start Date: 1/1/2007; **Kut, Jerry**; STTR Phase I: Chemical Management System using Radio Frequency Identification (RFID) Technology; Avchem, Inc.; \$150,000; (637753).

Start Date: 6/1/2007; **Leventis, Nicholas**; Collaborative Research: Synthesis, Characterization, Modelling and Simulation of Polymer Nanoencapsulated Aerogels; University of Missouri-Rolla; \$149,970; (653919).

Start Date: 7/1/2007; **Li, Aigen**; Photo-excitation and Destruction of Specific Polycyclic Aromatic Hydrocarbon Molecules in Interstellar Space and Circumstellar Dust



Disks; University of Missouri-Columbia; \$202,351; (707866).

Start Date: 6/1/2007; **Lin, Zhiwu;** Nonlinear Stability and Instability of Fluid and Plasma Equilibria; University of Missouri-Columbia; \$64,164; (707397).

Start Date: 1/1/2007; **Litt, Jacquelyn;** ADVANCE Partnerships for Adaptation, Implementation, and Dissemination Award: Gender Equity in STEM at the University of Missouri-Columbia; University of Missouri-Columbia; \$499,993; (618977).

Start Date: 1/1/2007; **Liu, Mian;** A Four-Dimensional Geodynamic Reconstruction of Cenozoic Tectonics in the Western United States; University of Missouri-Columbia; \$111,839; (635574).

Start Date: 8/1/2007; **Lodders, Katharina;** Atmospheric Chemistry in Brown Dwarfs and Low Mass Stars; Washington University; \$163,313; (707377).

Start Date: 8/1/2007; **Lu, Chenyang;** Collaborative Research: CRI: IAD: Towards Cyber-Physical Computing at Scale: A Life-Size Experimental Facility for Applied Sensor Networks Research; Washington University; \$50,000; (708460).

Start Date: 8/15/2007; **Luna, Ronaldo;** Introduction of GIS into Civil Engineering Curricula; University of Missouri-Rolla; \$499,794; (717241).

Start Date: 9/1/2007; **MacDougal, John;** REVSYS Collaborative Research: Untangling the Passionflower Vines: Phylogeny, Species Diversification, and Character Evolution in Passiflora Subg. Decaloba (Passifloraceae); Harris Stowe State College; \$44,435; (716940).

Start Date: 3/15/2007; **MacLeod, Ken;** Collaborative Research: Tracking North Atlantic Water Column Structure and Circulation Through the Late Cretaceous Using Oxygen and Neodymium Isotopes in Fish Debris; University of Missouri-Columbia; \$30,830; (623433).

Start Date: 4/15/2007; **MacLeod, Ken;** Collaborative Research: The Tropical Temperature History of the Cretaceous Greenhouse Interval Inferred from Tanzanian "Glassy" Foraminifera; University of Missouri-Columbia; \$76,275; (642993).

Start Date: 7/1/2007; **McCarter, James;** SBIR Phase I: Control of Lesion Nematodes by Transgenic RNA Interference; Divergence, LLC; \$100,000; (711892).

Start Date: 7/1/2007; **Miceli, Paul;** Crystal Growth at the Nanoscale: New Phenomena Revealed by In situ X-ray Scattering; University of Missouri-Columbia; \$279,730; (706278).

Start Date: 9/1/2007; **Miller, Frank;** MRI: Acquisition of a Dual Beam Focused Ion Beam System as a Regional Resource for Collaborative Research and Education in Missouri; University of Missouri-Rolla; \$500,000; (723128).

Start Date: 10/1/2007; **Minteer, Shelley;** EXP-SA: Self Powered Explosives Sensors; Saint Louis University; \$400,000; (729810).

Start Date: 6/1/2007; **Mitrea, Marius;** Harmonic Analysis, Geometric Measure Theory and Partial Differential Equations; University of Missouri-Columbia; \$46,239; (653180).

Start Date: 6/1/2007; **Morrison, Glenn;** Workshop on interfacial chemistry in indoor environments, July 2007, Berkeley, California; University of Missouri-Rolla; \$23,762; (707204).

Start Date: 7/1/2007; **Nabelek, Peter;** Collaborative Research: The Effects of CO₂-H₂O Fluids on the Deformation of Quartzite and Marble in the EJB Aureole, California; University of Missouri-Columbia; \$48,282; (711091).

Start Date: 6/1/2007; **Nordell, Shawn;** Dissertation Research: Early Invasion Dynamics of the Japanese pavement ant, *Tetramorium tsushimae*, in St. Louis, MO: The Genetic Structure of a Biological Invasion; Saint Louis University; \$12,000; (710122).

Start Date: 3/1/2007; **Nothwehr, Steven;** Molecular Mechanisms Relating to Protein Sorting within the Yeast TGN and Early Endosomal System; University of Missouri-Columbia; \$150,000; (641216).

Start Date: 8/1/2007; **Oboh-Ikuenobe, Francisca;** U.S.-Egypt Cooperative Research: Oceanic Anoxic Event and Organic Facies of the Cenomanian-Turonian and Their relation to Oil and Gas Formation in North Western Desert, Egypt; University of Missouri-Rolla; \$28,386; (707183).

Start Date: 3/28/2007; **Ohnersorgen, Michael;** Intrasite Organization and Interregional Interaction: Archaeological Investigations at Chacalilla, Nayarit, Mexico; University of Missouri-Saint Louis; \$104,096; (740375).

Start Date: 9/1/2007; **Pappu, Rohit;** Conformational Equilibria of Intrinsically Disordered Proteins; Washington University; \$300,000; (718924).

Start Date: 1/1/2007; **Pires, Joseph;** Toward Unraveling the Morphological Plasticity and Genome Redundancy of Brassica Oleracea; University of Missouri-Columbia; \$1,544,477; (638536).

Start Date: 9/1/2007; **Randrianarivony, Nirina;** Nonlinear Geometry of Banach Spaces and Metric Spaces; University of Missouri-Columbia; \$66,884; (701097).

Start Date: 8/15/2007; **Rochberg, Richard;** Problems in Function Theory and Operator Theory; Washington University; \$131,958; (700238).

Start Date: 6/15/2007; **Rudelson, Mark;** FRG: Collaborative Research: Fourier analytic and probabilistic methods in geometric functional analysis and convexity; University of Missouri-Columbia; \$469,998; (652571).

Start Date: 2/15/2007; **Sandvol, Eric;** Collaborative Research: Deep Structure of the Northeast Tibetan Collision Zone-INDEPTH IV; University of Missouri-Columbia; \$51,776; (409589).

Start Date: 9/1/2007; **Schachtman, Daniel;** En-Gen: A Genomic and Physiology Approach to Understanding the Impact of Fungal Colonization on Root Metabolism and Nutrient Acquisition; Donald Danforth Plant Science Center; \$934,996; (723775).

Start Date: 7/1/2007; **Schaettler, Heinz;** Collaborative Research: Analysis of Optimal and Suboptimal Controls for Mathematical Models Arising in Novel Cancer Therapies; Washington University; \$150,507; (707410).

Start Date: 8/15/2007; **Schilling, James;** Studies of Alkali Metal and Low- z Superconductors under Extreme Hydrostatic Pressure; Washington University; \$150,000; (703896).

Start Date: 9/1/2007; **Schul, Johannes;** Neuronal Mechanisms of Auditory Stream Segregation in an Insect; University of Missouri-Columbia; \$119,781; (722109).

Start Date: 9/1/2007; **Schulz, Michael;** Few-Body Dynamics of Atomic Reactions Induced by Particles and Anti-Particles; University of Missouri-Rolla; \$217,500; (652519).

Start Date: 8/1/2007; **Setzer, David;** SGER: Novel Approaches to Understanding the Mechanism of Transcriptional Activation; University of Missouri-Columbia; \$200,000; (732445).

Start Date: 9/1/2007; **Shymansky, James;** Teacher Helping Teachers Teach Science Inquiry: The "Just ASK" Project; University of Missouri-Saint Louis; \$983,290; (733195).

Start Date: 7/1/2007; **Smith, Dwyane;** A Planning Grant Project to Enhance Undergraduate Student Retention in Science, Technology, and Mathematics at HSSU; Harris Stowe State College; \$49,645; (714976).

Start Date: 9/1/2007; **Solin, Stuart;** Collaborative Research: Nanoscopic Metal-Semiconductor Hybrid Elements and Arrays; Washington University; \$200,000; (725538).



Start Date: 6/15/2007; **Stevens, Peter**; Dissertation Research: Understanding the origin and rapid diversification of the genus Anthurium (Araceae) integrating molecular phylogenetics, morphology and anatomy; University of Missouri-Saint Louis; \$10,840; (709851).

Start Date: 1/1/2007; **Stone, Robert**; CI-TEAM Implementation Project: Collaborative Research - A National Engineering Dissection Collaboratory; University of Missouri-Rolla; \$110,000; (636182).

Start Date: 4/1/2007; **Sussman, Robert**; Doctoral Dissertation Research: Ranging Behavior, Group Cohesiveness, and Patch Use in Chiropotes Satanas Chiropotes; Washington University; \$11,995; (648678).

Start Date: 8/15/2007; **Taub, Haskell**; The Dynamics of Organic Films on Different Time Scales; University of Missouri-Columbia; \$100,000; (705974).

Start Date: 1/1/2007; **Venayagamoorthy, Ganesh**; Modernizing the Undergraduate Power Engineering Curriculum with Real-Time Digital Simulation; University of Missouri-Rolla; \$151,127; (633299).

Start Date: 4/15/2007; **Will, Clifford**; Relativistic Gravitation and Astrophysics; Washington University; \$130,000; (652448).

Start Date: 6/1/2007; **Wood, Robert**; Dissertation Research: Phylogenetic Systematics and Evolution of the Crayfish Genus Cambarus; Saint Louis University; \$11,640; (710130).

Start Date: 8/1/2007; **Wunsch, Donald**; Computer Go -- A Proxy for Key Open Challenges and Opportunities in Computational Intelligence; University of Missouri-Rolla; \$299,986; (725382).

Start Date: 9/1/2007; **Yamilov, Alexey**; Collaborative Research: Mesoscopic Transport and Localization in Active Random Media; University of Missouri-Rolla; \$45,000; (704981).

Start Date: 6/1/2007; **Yang, Min**; Collaborative Research: Optimal Design of

Experiments for Categorical Data; University of Missouri-Columbia; \$46,562; (707013).

Start Date: 7/1/2007; **Yao, Gang**; CAREER: light propagation in striated muscle; University of Missouri-Columbia; \$63,085; (643190).

Start Date: 1/1/2008; **Younger, A. Steven**; Fixed-Weight Learning Neural Networks on Fast Optical Hardware; Missouri State University; \$275,000; (725867).

Start Date: 9/1/2007; **Yu, Qingsong**; Non-Equilibrium Atmospheric Plasmas for Dental Restoration Applications; University of Missouri-Columbia; \$270,000; (730505).

Start Date: 7/1/2007; **Zhang, Shufeng**; Magnetic Relaxation and Dynamics in Ferromagnetic Nanostructures; University of Missouri-Columbia; \$108,000; (704182).

Start Date: 8/1/2007; **Zhang, Yuwen**; An Integrated Approach for Modeling Nano- and Femtosecond Laser Sintering of Metallic Micro- and Nanoparticles; University of Missouri-Columbia; \$240,000; (730143).

Nebraska

Start Date: 8/1/2007; **Batelaan, Herman**; Coherent Electron Control; Matter Optics with Intense Laser Light and Nanostructures; University of Nebraska-Lincoln; \$182,590; (653182).

Start Date: 9/1/2007; **Borgstahl, Gloria**; Solving the Modulated Structures in Profilin:Actin Crystals; University of Nebraska Medical Center; \$500,000; (718661).

Start Date: 8/1/2007; **Cassman, Kenneth**; CNH: Collaborative Research: Pre-Contact Intensive Agriculture and Society in Kohala, Hawai'i; University of Nebraska-Lincoln; \$100,000; (709668).

Start Date: 1/1/2008; **Chen, Bing**; SPIRIT 2.0: Silicon Prairie Initiative for Robotics in Information Technology 2.0; University of Nebraska-Lincoln; \$1,067,160; (733228).



Start Date: 8/1/2007; **Choobineh, F. Fred**; RII: Nano-Enhanced Epigenetics Research (NE²R) in Nebraska; University of Nebraska; \$6,000,000; (701892).

Start Date: 7/1/2007; **Claes, Daniel**; Experimental High Energy Physics; University of Nebraska-Lincoln; \$191,000; (653592).

Start Date: 8/1/2007; **DiMagno, Stephen**; Anhydrous Fluoride Salts; University of Nebraska-Lincoln; \$420,000; (717562).

Start Date: 9/1/2007; **Dwyer, Matthew**; CSR-EHS Predictable Adaptive Residual Monitoring for Real-time Embedded Systems; University of Nebraska-Lincoln; \$50,000; (720654).

Start Date: 7/1/2007; **Frank, Tracy**; CAREER: Exploring the Geologic Record of Major Climate Transitions; University of Nebraska-Lincoln; \$408,671; (645504).

Start Date: 7/1/2007; **Gay, Timothy**; Polarized Electron and Photon Physics; University of Nebraska-Lincoln; \$185,000; (653379).

Start Date: 8/1/2007; **Goddard, Stephen**; Collaborative Research: CRI: IAD: Towards Cyber-Physical Computing at Scale: A Life-Size Experimental Facility for Applied Sensor Networks Research; University of Nebraska-Lincoln; \$200,000; (707944).

Start Date: 8/15/2007; **Harbourne, Brian**; KUMUNU 2007; University of Nebraska-Lincoln; \$8,545; (734827).

Start Date: 3/1/2007; **Holmes, Andrea**; Incorporating Circular Dichroism in the Undergraduate Chemistry Curriculum; Doane College; \$129,469; (633462).

Start Date: 6/15/2007; **Kebaara, Bessie**; RIG: The Role of Long 3' -UTRs in Targeting Normal Cellular mRNAs for Decay by Nonsense-mediated mRNA Decay; University of Nebraska-Lincoln; \$150,000; (642154).

Start Date: 5/15/2007; **Kim, Yong-Rak**; CAREER: Research and Education on Advanced Multiscale Modeling-Analysis of

Roadway Materials, Mixtures, and Infrastructure Systems; University of Nebraska-Lincoln; \$402,044; (644618).

Start Date: 4/15/2007; **Lu, Yongfeng**; Near-Field-Controlled Nanoscale Coating of Functional Thin Films for Nanodevices; University of Nebraska-Lincoln; \$240,000; (652905).

Start Date: 9/1/2007; **Lu, Yongfeng**; Conference: 26th International Congress on Applications of Lasers & Electro-Optics (ICALEO 2007), Orlando, Florida, October 29 to November 1, 2007; University of Nebraska-Lincoln; \$18,000; (729687).

Start Date: 7/1/2007; **Marky, Luis**; Sequence Specific Targeting of Nucleic Acids Using Intramolecular Triplexes: Energetics and Hydration; University of Nebraska Medical Center; \$161,471; (616005).

Start Date: 3/1/2007; **Radcliffe, Andrew**; Rowlee Conference: Random Combinatorial Structures; University of Nebraska-Lincoln; \$9,022; (700574).

Start Date: 9/1/2007; **Rajurkar, Kamlakar**; Modeling and Analysis of Material Removal and Tool Wear in Micro Ultrasonic Machining; University of Nebraska-Lincoln; \$247,760; (728294).

Start Date: 8/15/2007; **Robertson, Brian**; Spintronic Devices Enabled by Semiconducting Boron Carbide; University of Nebraska-Lincoln; \$99,998; (725881).

Start Date: 9/1/2007; **Srisa-an, Witawas**; CSR--PDOS: Memory Efficient Garbage Collection Framework for Java Server Applications; University of Nebraska-Lincoln; \$100,000; (720757).

Start Date: 8/1/2007; **Walker, Judy**; SGER: A unifying theory for capacity-achieving codes; University of Nebraska-Lincoln; \$91,100; (735099).

Oklahoma

Start Date: 9/1/2007; **Apblett, Allen**; EXP-SA: Development of Metal Oxide Bronzes for Detection of Military and Improvised



Explosives; Oklahoma State University; \$400,000; (731208).

Start Date: 3/15/2007; **Atekwana, Estella**; Acquisition of Electromagnetic and Resistivity/IP Imaging Systems for Neotectonics, Hydrogeology, and Biogeophysics Research; Oklahoma State University; \$117,590; (651433).

Start Date: 8/15/2007; **Baron, Edward**; Collaborative research: Three-Dimensional Simulations of Type Ia Supernovae: Constraining Models with Observations; University of Oklahoma Norman Campus; \$70,793; (707704).

Start Date: 6/15/2007; **Beasley, William**; Optical and Electromagnetic Investigations of Cloud-to-Ground Lightning in the Context of In-Cloud Discharge Processes; University of Oklahoma Norman Campus; \$403,733; (721119).

Start Date: 8/1/2007; **Blancaflor, Elison**; MRI: Acquisition of a spinning disk confocal microscope for rapid imaging of plant cellular processes; Samuel Roberts Noble Foundation, Inc.; \$369,001; (722635).

Start Date: 8/1/2007; **Bukkapatnam, Satish T. S.**; GOALI: Real-time Performance Prediction of Multi-Stage Manufacturing Systems using Nonlinear Stochastic Differential Equation Models; Oklahoma State University; \$239,952; (729552).

Start Date: 9/1/2007; **Bukkapatnam, Satish T. S.**; Collaborative Research: A TIE Research Program for RFID Microtag; Oklahoma State University; \$50,000; (736485).

Start Date: 3/1/2007; **Bunting, Charles**; Teaching High Frequency Design as a Technologic Enabler; Oklahoma State University; \$149,934; (633680).

Start Date: 1/1/2008; **Catlos, Elizabeth**; IRES: Research Opportunities in Extensional Dynamics for US Undergraduate and Graduate Geosciences Students in Western Turkey; Oklahoma State University; \$150,000; (728519).

Start Date: 8/15/2007; **Cowan, John**; The Age, Formation and Evolution of the Elements; University of Oklahoma Norman Campus; \$137,238; (707447).

Start Date: 2/1/2007; **Crowther-Heyck, Hunter**; Scholar's Award: The Branching Tree: Organization, Process, and Hierarchy in the 20th-Century Social and Behavioral Science; University of Oklahoma Norman Campus; \$32,155; (621232).

Start Date: 3/15/2007; **Fiedler, Brian**; Suction Vortices, Spiral Breakdown and Multiple Vortices in Tornadoes; University of Oklahoma Norman Campus; \$92,094; (646914).

Start Date: 8/15/2007; **Grant, Floyd**; Electromagnetic Compatibility Center -- An Industry/University Cooperative Research Collaboration; University of Oklahoma Norman Campus; \$10,000; (733019).

Start Date: 8/1/2007; **Gronlund, Scott**; Contributions of Recollection and Distinctiveness to the Sequential Lineup Advantage; University of Oklahoma Norman Campus; \$182,623; (719997).

Start Date: 8/15/2007; **Guan, Yongpei**; Polyhedral Combinatorics and Algorithms for Stochastic Integer Programming; University of Oklahoma Norman Campus; \$142,516; (700868).

Start Date: 9/1/2007; **Guha Roy, Aimee**; Graduate Research Fellowship Program; Guha Roy, Aimee S.; \$40,500; (739139).

Start Date: 9/1/2007; **Hartson, Steven**; MRI: Acquisition of an LTQ Mass Spectrometer; Oklahoma State University; \$458,139; (722494).

Start Date: 7/1/2007; **Holley, Steve**; Oklahoma Nanotechnology Education Initiative; Oklahoma State University; \$207,918; (702976).

Start Date: 9/1/2007; **Howard, Daniel**; Minority Postdoctoral Research Fellowship for FY 2007; Howard, Daniel R.; \$189,000; (706849).



Start Date: 8/1/2007; **Ingalls, Ricki;** Collaborative: CELDi Renewal; Oklahoma State University; \$72,575; (732516).

Start Date: 8/1/2007; **Ingalls, Ricki;** Collaborative Research: A TIE Research Program on E-Design for Design for Supply Chain; Oklahoma State University; \$25,000; (733144).

Start Date: 9/1/2007; **Kalchgruber, Regina;** MRI: Development of a Confocal Instrument for Spatially Resolved Luminescence Measurements in Geologic and Archaeological Dating and Radiation Dosimetry; Oklahoma State University; \$446,258; (722552).

Start Date: 7/1/2007; **Komanduri, Ranga;** Heterogeneous Wireless Sensing and Modeling of Chemical-Mechanical Interactions in Chemical Mechanical Planarization Process for Microelectronic Applications; Oklahoma State University; \$394,995; (700680).

Start Date: 9/1/2007; **Kujawa, Jonathan;** Cohomology, Support Varieties, and Representation Theory; University of Oklahoma Norman Campus; \$113,070; (734226).

Start Date: 3/15/2007; **LaDue, Daphne;** REU Site: Real-World Research Experiences at the National Weather Center; University of Oklahoma Norman Campus; \$151,528; (648566).

Start Date: 4/1/2007; **Lavine, Barry;** REU Site: Research Experience for Undergraduates in Integrated Nanoscience; Oklahoma State University; \$112,545; (649162).

Start Date: 6/15/2007; **Leighly, Karen;** Understanding the Physical Conditions in the Low-Ionization Line-Emitting Region in Quasars; University of Oklahoma Norman Campus; \$209,168; (707703).

Start Date: 7/1/2007; **Li, Xiaolin;** CRI: IAD A Research and Education Infrastructure for Enabling Autonomic Sensor Grid Systems and Multidisciplinary Applications;

Oklahoma State University; \$298,000; (709329).

Start Date: 8/1/2007; **Linn, Mary;** Oklahoma Language Digitization and Access Project; University of Oklahoma Norman Campus; \$200,497; (651992).

Start Date: 6/1/2007; **London, David;** Upgrade of the Electron Microprobe Laboratory, University Of Oklahoma; University of Oklahoma Norman Campus; \$133,060; (649001).

Start Date: 3/15/2007; **Lovern, Matthew;** Maternal Steroid Effects on Offspring Phenotype; Oklahoma State University; \$320,000; (641434).

Start Date: 6/1/2007; **Lu, Hongbing;** Collaborative Research: Synthesis, Characterization, Modelling and Simulation of Polymer Nanoencapsulated Aerogels; Oklahoma State University; \$150,000; (653970).

Start Date: 8/15/2007; **Maher, Joseph;** Geometry of the mapping class group and applications to 3-manifolds; Oklahoma State University; \$104,113; (706764).

Start Date: 7/1/2007; **Mao, Chuanbin;** NER: Building Biomimetic Nano-Tracks and Transporters on Target-Recognizing Filamentous Viruses; University of Oklahoma Norman Campus; \$118,057; (709287).

Start Date: 8/1/2007; **Mayeux, Lara;** Forms and Functions of Adolescent Relational Aggression: A Daily Diary Study; University of Oklahoma Norman Campus; \$69,217; (720300).

Start Date: 7/15/2007; **Ownby, Charlotte;** MRI: Acquisition of a Field Emission Environmental Scanning Electron Microscope to Enhance Research and Teaching at Oklahoma State University; Oklahoma State University; \$605,000; (722410).

Start Date: 4/15/2007; **Page, Rex;** Collaborative Proposal: Integrating Mechanized Logic into the Software Engineering Curriculum; University of



Oklahoma Norman Campus; \$74,540; (633664).

Start Date: 6/15/2007; **Papavassiliou, Dimitrios**; Turbulent transport in anisotropic velocity fields; University of Oklahoma Norman Campus; \$292,516; (651180).

Start Date: 6/1/2007; **Parker, Gregory**; Adiabatic and Nonadiabatic Energy Transfer in Cold and Ultracold Collisions; University of Oklahoma Norman Campus; \$200,000; (701445).

Start Date: 8/1/2007; **Pulat, Babur**; Collaborative: CELDi Renewal; University of Oklahoma Norman Campus; \$25,000; (732486).

Start Date: 6/15/2007; **Ragan, Terry**; Choctaw (CHO) Language Preservation Project; Choctaw Nation of Oklahoma; \$80,000; (651514).

Start Date: 9/1/2007; **Refai, Hazem**; Disaster Area Wireless Network; University of Oklahoma Norman Campus; \$299,842; (725801).

Start Date: 2/1/2007; **Richter-Addo, George**; CRIF:MU Hardware and Cyberinfrastructure Update of a 400 MHz NMR; University of Oklahoma Norman Campus; \$308,064; (639199).

Start Date: 8/15/2007; **Shenoi, Sujeet**; University of Tulsa Cyber Corps Initiative; University of Tulsa; \$397,696; (715472).

Start Date: 8/1/2007; **Sohoni, Sohum**; CSR-PDOS: Out-of-Context Prefetching for L2 Caches; Oklahoma State University; \$100,819; (720741).

Start Date: 3/1/2007; **Straka, Jerry**; Formative Dynamics of Mammatus Clouds in Thunderstorm Cirrus; University of Oklahoma Norman Campus; \$100,241; (646892).

Start Date: 7/20/2007; **Weil, Anne**; COLLABORATIVE RESEARCH: Evaluating the Contribution of Late Cretaceous Biogeography to Earliest Cenozoic Biodiversity in North America; Oklahoma

State University-College of Osteopathic Medicine; \$22,138; (654096).

Start Date: 9/1/2007; **Wellborn, Gary**; Mechanisms of Constraint in the Evolutionary Radiation of a Crustacean Species Complex; University of Oklahoma Norman Campus; \$203,147; (716927).

Start Date: 10/1/2007; **Whittle, Jessica**; Graduate Research Fellowship Program; Whittle, Jessica K; \$40,500; (739141).

Start Date: 9/1/2007; **Yeary, Mark**; MRI: Development of a Multi-Channel Receiver for the Realization of Multi-Mission Capabilities at the National Weather Radar Testbed; University of Oklahoma Norman Campus; \$699,440; (723132).

South Dakota

Start Date: 6/1/2007; **Gu, Xing-You**; Characterization of the Major Dormancy gene at qSD12 in Rice; South Dakota State University; \$126,061; (641376).

Start Date: 6/15/2007; **Wells, Eric**; RUI: Momentum Imaging Studies of Controlled Molecular Fragmentation; Augustana College; \$134,077; (653598).

Start Date: 7/1/2007; **Engebretson, Daniel**; SBIR Phase I: Multiplexed suspension array for rapid, point-of-care molecular diagnostics; Prairie Scientific Innovations; \$98,500; (712045).

Start Date: 7/1/2007; **Brunsch, James**; STTR Phase I: High Relative Permittivity Packaging to Enhance MEMS Gyroscopic Sensors; MEMSense, LLC; \$149,974; (712339).

Start Date: 7/1/2007; **Bang, Sookie**; Microbial Dust Suppression; South Dakota School of Mines and Technology; \$50,592; (725398).

Start Date: 8/1/2007; **Wei, Jianbin**; CSR-PDOS: Non-Intrusive Monitoring and Management of End-to-End Performance for Secured Internet Service; South Dakota School of Mines and Technology; \$150,000; (720560).



September 24, 2007

Start Date: 8/1/2007; **Koodali, Ranjit**; MRI: Acquisition of a Powder X-ray Diffractometer for Materials Chemistry Research and Education; University of South Dakota Main Campus; \$163,000; (722632).

Start Date: 8/1/2007; **Fu, Xinwen**; MRI: Acquisition of Equipment to Establish an Information Assurance Infrastructure for Research and Education at Dakota State University; Dakota State University; \$120,557; (722856).

Start Date: 8/1/2007; **Yan, Xingzhong**; MRI: Acquisition of a Femtosecond Fluorescence Upconversion System; South Dakota State University; \$242,285; (723114).

Start Date: 8/1/2007; **Gibbons, William**; Center for BioFuels Research and Development; South Dakota State University; \$4,998; (733884).

Start Date: 8/15/2007; **Dixon, David**; Center for BioFuel Research and Development; South Dakota School of Mines and Technology; \$10,000; (733980).

Start Date: 9/1/2007; **Mannel, Sylvio**; Lakota Land 2 - Sharing Lakota History; Oglala Lakota College; \$51,453; (703813).

Start Date: 9/1/2007; **Roggenthen, William**; Collaborative Research: Towards the Transparent Earth; South Dakota School of Mines and Technology; \$138,054; (727921).

6. Upcoming Meetings

GPN Meetings

Bioinformatics/Computational Biology Teleconference — First Wednesday of every month at 2:00 p.m. Next: October 2, 2007. [Join here.](#)

GPN Representative Council Teleconference — Fourth Wednesday of every month at 10:00 a.m. Next: September 26, 2007.

GPN Research Advisory Board Teleconference - Second Wednesday of

every quarter at 1:00 p.m. Next: December 12, 2007.

GPNgrid Technical Administration – Alternate Fridays at 1:30 p.m. Next: September 21, 2007. [Join here.](#)

Middleware/Grid Teleconference – Alternate Fridays at 1:30 p.m. Next: September 28, 2007. [Join here.](#)

Regional Meetings/Workshops

EPSCoR Cyberinfrastructure Assessment Workshop – October 15-16, 2007. Lexington Hyatt Regency, Lexington, KY.

GPN Disaster Recovery Meeting - September 25 - 26, 2007. Doubletree Hotel & Executive Meeting Center Omaha-Downtown, Omaha, NE. Sponsored by [Ciena](#).

Oklahoma Supercomputing Symposium 2007 - Wed October 3, 2007, with a reception/poster session the evening of Tuesday, October 2, at the University of Oklahoma.

7. Subscription Information

[Join the GPN email list here.](#)

[Join GPN Projects here.](#)

Please send any notices to share with the GPN community to denab@ksu.edu.

Further information can be found at: <http://collaboration.greatplains.net>.