



ADVANCING RESEARCH CREATING SOLUTIONS

April 16 2007

The Great Plains Network

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presentations that highlight what you are doing at your institution. To submit go to: <http://collaboration.greatplains.net/register/annualmeeting/presentation.php>

By Sandhya Bathini, Newsletter Editor and Dena Bunnel, Member Coordinator

Register!

Registration is open now at: <http://collaboration.greatplains.net/register/annualmeeting/>

Celebrate as GPN Turns Ten!
GPN 2007: Markers, Milestones & New Directions
The Great Plains Network Annual Meeting
May 30, 31 & June 1, 2007
 Kansas City, MO

More information is available at: http://collaboration.greatplains.net/wiki/index.php/Annual_Meeting:2007

Keynote Speakers

Keynote speakers for the meeting include

- **Ruth Pordes**, Executive Director, Open Science Grid;
- **Doug Van Houweling**, President and CEO, Internet2;
- **Ken Klingenstein**, Chief Architect, Internet2's Shibboleth project;
- **Mary McLaughlin**, Merit Networks.

Sponsors



Watch your emails for more updates on the 2007 GPN Annual Meeting. We look forward to seeing you in May!

Workshops and Presentations

Currently, workshops and presentations to be held at the meeting include these great topics: **The Globus Project** and **Biotools available through GPN.**

1. Latest News

GPNgrid. Biologists at University of Nebraska Lincoln have been able to use **GPNgrid** and **OSG** to log over 37,000 hours for computing, reported **Brian Bockelman** of **UNL** to **GPNgrid** project members on April 6, 2007. Statistics from Open Science Grid indicate that, between March 13, 2007, and April 13, 2007, over **6900 jobs** were logged on **GPNgrid**. During the same period, there were **over 46,000 clock hours** logged.

Special Sessions

Special sessions will be held on: **GPNgrid, Disaster Recovery, Security, and State Networks.**

Rahul Deshmukh of GPN is bringing up a cluster to add to the others that are a part of the GPN Virtual Organization.

Submit!

We are still looking for your **individual, panel/roundtable** or **poster**

Shibboleth, Middleware and GPN Featured in Kansas State Collegian.
Dena Bunnel, GPN Member Coordinator,



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Kansas State University, recently published an article in the *Kansas State Collegian* on the GPN efforts to bring together efforts at several campuses in the area of federated identity management. [Read Dena's article here.](#)

Teaching Condor Grid Computing to Beginning Programming Students was an article recently published by **Professor Amy Apon** and **Matt Baker**, **University of Arkansas**, in *IEEE Distributed Systems Online*, 8, #4, 2007. **GPNgrid** was also highlighted: "Beginning with our involvement in the development of a [regional middleware test bed](#), we helped create the [GPNGrid virtual organization](#) within the [Open Science Grid](#). The OSG uses grid-enabling software called the Virtual Data Toolkit (a packaging and distribution of Condor and Globus). Condor handles workload management, while the Globus software manages security, transport, and other services in the grid. Condor is also a [well-established tool for high-throughput computing](#) separate from a Globus-enabled grid. Because of our positive experiences with OSG and Condor, we decided to teach Condor to beginning students as a grid computing tool." [Read the full article here.](#)

[Peek Into Riverbluff Cave Via Technology](#) (MO) - While Riverbluff Cave is much too fragile to open to the public, through the wonders of technology; Springfield, MO is sharing Riverbluff with the world. Libraries are invited to participate through videoconferencing or video streaming in "Riverbluff Cave Day," to be held from 1-3 p.m. on Saturday, April 14. David Harrison, author of "Cave Detectives: Unraveling the Mystery of an Ice Age Cave," will be at the event to sign copies of the book and answer questions, lead paleontologist Matt Forir will broadcast live from the clay-coated chambers of the cave, the oldest or second oldest known Ice Age fossil site on

the North American continent. All you need to "virtually" attend the event and see Forir inside the cave in real time, says **MOREnet's Bill Giddings**, is a computer and access to a web browser. "And we'll record the event for possible future use."

[Cyberinfrastructure Vision for 21st Century Discovery](#) - NSF's Cyberinfrastructure Vision for 21st Century Discovery is a sweeping call to reimagine: 1) Cyberinfrastructure resources, tools and related services such as supercomputers, high-capacity mass-storage systems, system software suites and programming environments, scalable interactive visualization tools, productivity software libraries and tools, large-scale data repositories and digitized scientific data management systems, networks of various reach and granularity and an array of software tools and services that hide the complexities and heterogeneity of contemporary cyberinfrastructure while seeking to provide ubiquitous access and enhanced usability, and; 2) The preparation and training of current and future generations of researchers and educators to use cyberinfrastructure to further their research and education goals, while also supporting the scientific and engineering professionals who create and maintain these IT-based resources and systems and who provide essential customer services to the national science and engineering user community. The vision document was developed by the National Science Foundation's Cyberinfrastructure Council.

GPN Cyber Physical Systems project team is now forming. The GPN Research Advisory Board recommended that the GPN community become involved in the NSF Cyber Physical Systems program, possibly taking on a grand challenge in the area of either power, environmental and/or transportation management.

Bruce McMillin, Director of the Experimental Computation Laboratory,

University of Missouri at Rolla, has agreed to champion this effort with support from the GPN staff. If you are interested in pursuing a cooperative venture in this area, please check out [http://collaboration.greatplains.net/wiki/index.php/Research_Advisory_Board: Workspace](http://collaboration.greatplains.net/wiki/index.php/Research_Advisory_Board:_Workspace) for an overview of requirements for the project.

The big opportunity is wide-area collaboration, according to Dr. McMillin. The theme is to use the low latency of the **Great Plains Network** to make distributed operational decisions on critical infrastructures.

The overarching, value-added aspect of the research is to draw in multiple disciplines and multiple universities to experiment with and validate systems issues such as Quality of Service as well as multi-disciplinary ideas that have a wide popular appeal.

If you are interested in pursuing this, please contact **Greg Monaco**, GPN Executive Director (greg@greatplains.net) or Bruce McMillin (ff@umr.edu). If you know of someone else who may be interested, please forward this message.

2. Campus Notes



Myeloma Researchers Find New Tool for Identifying High-Risk Cases

University of Arkansas for Medical Sciences, Arkansas - A genetic analysis model developed by researchers at the University of Arkansas for Medical Sciences (UAMS) has outperformed all current clinical tests for identifying patients with aggressive multiple myeloma, a cancer of the bone marrow.

John D. Shaughnessy Jr., Ph.D., UAMS professor and director of the Lambert Laboratory in the Myeloma Institute for Research and Therapy.

3. Recent Awards

NSF Awards: Here are the new NSF awards that were registered between January and February 2007.

Arkansas

Start Date: 04/01/2007; **Lupashin, Vladimir**; *Functional Analysis of the Conserved Oligomeric Golgi (COG) Complex in Yeast*; University of Arkansas Med Science; \$148,749; (0645163).

Kansas

Start Date: 04/01/2007; Dwyer, Arienne; *Collaborative Proposal: Workshop: Towards the Interoperability of Language Resources*; University of Kansas; \$25,157; (0709732).

Start Date: 05/01/2007; **Desaire, Heather**; *CAREER: A synergistic approach to glycoprotein remodelling and analysis*; University of Kansas; \$275,000; (0645120).

Start Date: 04/01/2007; **Goodtracks, Jimm**; *Ioway Otoe-Missouria Dictionary Project*; Iowa Tribe of KS & NE; \$97,586; (0553585).

Start Date: 04/01/2007; **Higgins, Daniel**; *Collaborative Research: New Routes for the Preparation and Characterization of Functionally-Graded*



and Mesoporous Silica Thin Films; Kansas State University; \$101,500; (0647849).

Start Date: 03/15/2007; **Madanshetty, Sameer**; *SBIR Phase II: A Quality Monitor for Enabling Water Recycling in Semiconductor Processing - The Particle Scout*; Uncopiers, Inc.; \$500,000; (0646557).

Start Date: 04/01/2007; **Miller, William**; *RUI: Tardigrades of the LTER Sites: A Framework for the Distribution and Phylogeny of North American Tardigrada*; Baker University; \$37,635; (0640847).

Start Date: 05/01/2007; **Ostermann, Russell**; *REU Site: REU in Chemical and Petroleum Engineering*; University of Kansas ; \$103,850; (0649257).

Start Date: 06/01/2007; **Thumm, Uwe**; *Quantum Dynamics in Particle Interactions with Atomically Flat and Nano-Structured Surfaces*; Kansas State University; \$65,000; (0653624).

Start Date: 03/15/2007; **Wang, Weichao**; *Bridging Security Primitives and Protocols: A Digital LEGO Set for Information Assurance Courses*; University of Kansas; \$78,460; (0633143).

Nebraska

Start Date: 08/01/2007; **Fabrikant, Ilya**; *Electron-Molecule Collisions in Different Environments*; University of Nebraska-Lincoln; \$80,000; (0652866).

Start Date: 04/01/2007; **Hebets, Eileen**; *CAREER: Evolution and Function of Complex Signaling in the Wolf Spider Genus *Schizocosa**; University of Nebraska-Lincoln; \$489,050; (0643179).

Start Date: 04/01/2007; **Pitts, David**; *Collaborative Research: Operator Theory/Operator Algebras, GPOTS 07-08*; University of Nebraska-Lincoln; \$25,000; (0650030).

Start Date: 05/01/2007; **Woodward, Gordon**; *REU Site: Nebraska REU in Applied Mathematics*; University of Nebraska-Lincoln; \$251,823; (0649104).

Missouri

Start Date: 09/01/2007; **Bohner, Martin**; *Time Scales in Economics and Finance*; University of Missouri Rolla; \$100,000; (0624127).

Start Date: 04/01/2007; **Leopold, Jennifer**; *Semi-Automated Construction of Ontology for Amphibian Morphology*; University of Missouri Rolla; \$353,162; (0640053).

Start Date: 03/15/2007; **Wilfley, Denise**; *Doctoral Dissertation Research in DRMS: Discounting of Delayed and Probabilistic Rewards Among Women With and Without Binge Eating Disorder*; Washington University Sch of Med; \$5,000; (0648516).

Oklahoma

Start Date: 10/01/2007; **Atekwana, Estella**; *Collaborative Research: Investigating the impact of microbial interactions with geologic media on geophysical properties: Implications for assessing geomicrobiological processes*; Oklahoma State University; \$113,908; (0729642).

Start Date: 06/01/2007; **Fincke, Ola**; *The Evolution of Female-Specific Color Variation in Damselflies*; University of Oklahoma; \$372,359; (0641679).

Start Date: 03/15/2007; **Luo, Yiqi**; *Workshop: Data-Model Assimilation in Ecology: Techniques and Applications, July 2007*; University of Oklahoma; \$48,000; (0714142).

Start Date: 05/01/2007; **Sen, Sandip**; *Autonomous Agents and Multiagent Systems - 07 (AAMAS-07) Student Travel Grant; Honolulu, Hawaii; May 14-18,*



2007; University of Tulsa; \$26,250; (0714176).

Start Date: 04/01/2007; **Simms, Alexander**; *SGER: Testing the use of OSL dating of beach deposits along the Antarctic Peninsula*; Oklahoma State University; \$20,187; (0724929).

South Dakota

Start Date: 06/01/2007; **Mabee, Paula**; *Linking Evolution to Genomics Using Phenotype Ontologies*; University of South Dakota; \$607,026; (0641025).

NIH Awards: The new awards in our region for Bioinformatics and/or Computational Biology from NIH's CRISP database.

Kansas

Start Date: 04/01/2007; End Date: 03/31/2012; **Heckert, Leslie L**; *Gonadal expression of FSH receptor*; University of Kansas Medical Center; 1R01HD053549-01A1.

Missouri

Start Date: 07/01/2006; End Date: 06/30/2011; **Hinrichs, Anthony L**; *Statistical Methods for the Genetics of Alcoholism*; Washington University; 1K01AA015572-01A1.

Start Date: 06/01/2006; End Date: 05/31/2007; **Rivas, Elena**; *Computational approaches to noncoding RNAs*; Washington University; 1R13HG003940-01.

4. New Funding Opportunities

Centers of Biomedical Research Excellence (COBRE) (Department of Health and Human Services- NIH) -

The objective of COBRE initiative is to strengthen an institution's biomedical research infrastructure through the establishment of a thematic multi-disciplinary center and to enhance the ability of investigators to compete independently for complementary National

Institutes of Health (NIH) individual research grant or other external peer-reviewed support. Letter of Intent: September 24, 2007; Closing Date for Applications: October 24, 2007.

Chemistry Research Instrumentation and Facilities: Instrument Development(NSF- MPS) -

The Chemistry Research Instrumentation and Facilities Program (CRIF) is structured to enable the National Science Foundation's Division of Chemistry to respond to a variety of needs for infrastructure--instrumentation and facilities--that promotes basic research and education in areas traditionally supported by the Division. Closing Date for Applications: January 23, 2008; Subsequent Due Dates: fourth Tuesday of January, annually.

Developmental Centers for Research on Complementary and Alternative Medicine: Phase I (NIH- Department of Health and Human Services) -

This PAR solicits applications to support Developmental Centers for Research on CAM: Phase I, comprised of 3 or 4 developmental/ exploratory (R21-comparable) research projects in complementary/alternative medicine (CAM). Estimated Total Program Funding: \$200,000; Letter of Intent: July 13, 2007; Closing Date for Applications: August 14, 2007.

Global Research Initiative Program, Basic/Biomedical Sciences (Department of Health and Human Services- National Institutes of Health) -

The purpose of this initiative is to provide funding opportunities for the increasing pool of foreign basic and biomedical scientists, clinical investigators, nurses and other health professionals with state-of-the-art knowledge of research methods to advance critical issues in global health upon their return to their home low- or middle-income countries through basic and biomedical sciences research and technology development. Expected Number of Awards: 6; Estimated Total



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Program Funding: \$300,000. Letter of Intent: August 21, 2007; Closing Date for Applications: September 21, 2007.

[Interdisciplinary Grants in the Mathematical Sciences \(NSF- MPS\)](#) -

The objective of the Interdisciplinary Grants in the Mathematical Sciences (IGMS) program is to enable mathematical scientists to undertake research and study in another discipline so as to: expand their skills and knowledge in areas other than the mathematical sciences; subsequently apply this knowledge in their research; and enrich the educational experiences and broaden the career options of their students. Expected Number of Awards: 10; Estimated Total Program Funding: \$1,000,000; Closing Date for Applications: February 19, 2008; Subsequent Due Dates: February 19, annually.

[Molecular Probes for Microscopy of Cells \(NIH- Department of Health and Human Services\)](#) -

The purpose of this funding opportunity is to evaluate promising but unproven general purpose enabling technologies for the routine detection by microscopy of single molecules and single molecular events inside cells. Letters of Intent: April 25, 2007, July 29, 2007; Closing Dates for Applications: May 25, 2007, August 29, 2007.

[National Gene Vector Biorepository and Coordinating Center \(NIH- Department of Health and Human Services\)](#) -

This funding opportunity announcement (FOA) solicits Specialized Centers (P40) grant applications from applicant institutions with the following goals: the provision of a biologic storage facility for gene vector materials, the establishment of an archive for storing materials from human subjects exposed to gene therapy, the creation of a pharmacology-toxicology database for gene vector-related study results, the support of pharmacology-toxicology research related to gene therapy, and the development of a coordinating center to

facilitate access to materials and information in the field of gene therapy. Estimated Total Program Funding: \$660,000; Letter of Intent: June 11, 2007; Closing Date for Applications: July 10, 2007.

[Research on Edge Organizations in the Context of Network-Centric Operations \(Department of Defense- Office of Naval Research\)](#) -

The Edge Center focuses on research pertaining to Defense command, control and organization in general and on Edge Organizations in the context of Network Centric Operations in particular. The research will be performed by faculty and students at NPS and other top-tier research institutions, and it will be integrated into a coherent research stream. Closing Date for Applications: February 28, 2008.

[ROSES 2007: Astrophysics Theory and Fundamental Physics \(National Aeronautics and Space Administration, NASA Headquarters\)](#) -

This NASA Research Announcement (NRA) solicits proposals for supporting basic and applied research and technology across a broad range of Earth and space science program elements relevant to one or more of the following NASA Research Programs: Earth Science, Heliophysics, Planetary Science, and Astrophysics. Proposal due dates are scheduled starting on May 1, 2007, and continue through April 11, 2008. Closing Date for Applications: June 01, 2007.

[Technology Development for the Detection and Evaluation of Chemical and Biological Carcinogens \(SBIR\) \(Department of Health and Human Services - NIH\)](#) -

This Funding Opportunity Announcement (FOA) issued by the National Cancer Institute (NCI) solicits Small Business Innovation Research (SBIR) grant applications from small business concerns (SBCs) that propose to develop new technologies and/or improve existing technologies for the detection and evaluation of chemical



and biological carcinogens in clinical and/or environmental specimens. The ultimate goal of this initiative is to develop innovative carcinogen detection technologies to the stage of commercially viable assays. Estimated Total Program Funding: \$1,400,000; Closing Dates for Applications: August 5, 2007, December 5, 2007.

University-Industry Cooperative Research Programs in the Mathematical Sciences (NSF- MPS) –

The purpose of this program is to provide more opportunities for mathematical scientists to have the experience of conducting research in an industrial environment and for industrial scientists to return periodically to academia, to acquire new knowledge, and to move it efficiently into technology. Expected Number of Awards: 10; Estimated Total Program Funding: \$1,000,000; Closing Date for Applications: June 02, 2007; Subsequent Due Dates: June 2, annually.

5. Upcoming Meetings

GPN 2007: Markers, Milestones, and New Directions The Great Plains Network Annual Meeting – May 30, 31 & June 1, 2007; Kansas City, MO.

- [Registration...](#)
- [Call for Posters, Papers, Panels...](#)

Bioinformatics/Computational Biology Teleconference — First Wednesday of every month at 2:00 p.m. Next: April 4, 2007.

GPN Representative Council Teleconference — Fourth Wednesday of every month at 10:00 a.m. Next: April 25, 2007.

Middleware/Grid Teleconference — Alternate Fridays at 1:30 p.m. Next: April 13, 2007.

Oklahoma Supercomputing Symposium 2007 - Wed October 3, 2007, with a reception/poster session the

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evening of Tuesday, October 2, at the University of Oklahoma.

6. 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>.