

- 1. Latest News1
- 2. GPN Representative Profile2
- 3. Campus Notes2
- 4. Funding Opportunities from NSF ...3
- 5. Recent Awards4
- 6. Upcoming Meetings7
- 7. Subscription Information7

By Dena Bunnel, Member Coordinator

1. Latest News

GPN Strategic Planning meeting looks toward future

As members of the GPN planning committee met just before Christmas to talk about GPN's future, two objectives quickly surfaced: a need to revamp the GPN councils and to secure a large multi-institution grant that would forward GPN's reputation on the national scene.

Led by facilitator Pat Sanaghan, 12 GPN members met on Dec. 17-18 in Kansas City to begin discussion on a strategic plan to lead GPN into the future. The meeting produced some in-depth looks into GPN's strengths and weaknesses and where the future of GPN and organizations like us are heading.

Further work on the formation of a strategic plan is being discussed among several groups in GPN. Notes from the meeting are posted [here](#).

GPN SEGP to host virtual classroom with Greensburg, Kan., during Emergency Preparedness Week

During Emergency Preparedness Week in March, the GPN SEGP committee will be facilitating interactive video between classrooms in Greensburg, Kan., site of a recent tornado disaster, and K12 schools in the GPN region. Greensburg has received a

great deal of regional and national attention because of the devastation of that city, including attention at this year's State of the Union address. Read more about it [here](#).



The remains of Greensburg Highschool after the tornado.

One-hour programs, titled "Lessons from Greensburg, Kansas" are tentatively scheduled for March 11 at 8:45 a.m. (elementary school focus), 10 a.m. (middle & high school focus), and 1 p.m. (second program for middle & high school). In the evening, a program for community members is tentatively planned for 7 p.m.

If you know of a school that would like to be video-conferenced in to one of these sessions, or if you would like to add a program (e.g., disaster preparedness) to this ensemble of programs, please contact your GPN representative or [Greg Monaco](#), GPN Executive Director.

[Learn more about the GPN SEGP effort.](#)

Fifth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society (MCBIOS) to be held - MCBIOS 2008 will take place February 23-24 in the Cox Convention



Center in the Bricktown area, the historic center of Oklahoma City.

The theme of this year's conference is "Systems Biology - Bridging the Omics". There will be a combination of interactive panel discussions and technical presentations, both poster and platform, during the conference. Student participants are automatically entered in our cash award competition for Best Student Research Presentation.

The annual MCBIOS conference has historically attracted internationally renowned speakers, including David Mount, author of the popular bioinformatics textbook *Bioinformatics: Sequence and Genome Analysis*, Michael Gribskov, President of the International Society for Computational Biology, Alan Leshner, AAAS CEO and executive publisher of *Science*, Richard A. Gibbs, Director of the Baylor Human Genome Sequencing Center and Dr. Winston Hide, Director of the South African National Bioinformatics Institute. The conference attendance in previous years has reflected its status as the premier forum in the region, gathering faculty and students from all states in the region and beyond.

2. GPN Representative Profile

University of Oklahoma

Dennis Aebersold, Ph.D.

CIO and VP for Information Technology



Dennis Aebersold joined the University of Oklahoma (OU) in 2000 and has transformed the University from a place where students stood 'in line' for services to a place where students access an online community of services that contribute to their learning experience. In recognition of his leadership, the student body selected

Dennis to receive the 2002 Neustadt Award for Outstanding Service to OU students.

The University of Oklahoma is now first in the Big 12 in connectivity and one of *PC Magazine's* 2007 Top 20 Wired Colleges.

A recognized expert in the IT field of higher education, Dennis is focused on aligning technology talent, resources, and services to advance and support the University's Mission. He is leading OU to the cutting edge of emerging technologies, from secure wireless connectivity to multi-disciplinary supercomputing (the OU Supercomputing Center for Education and Research - <http://oscer.ou.edu>).

Computerworld recognized Dennis's success, naming him one of its Premier 100 IT Leaders for 2007.

"Dennis Aebersold is very deserving of this outstanding national recognition," said OU President David L. Boren. "His leadership has helped take OU into the top ranks of all universities in technological tools available to students and faculty."

People - not technology - are Dennis's greatest resource as a CIO; his organization reflects his leadership. In 2006, *Computerworld* named OU IT one of the 100 Best Places to Work in IT.

Dennis holds a Ph.D. in Chemical Physics from Brown University and has conducted Post Doctoral research at Harvard and Duke Universities. His life as a teacher, administrator, leader, and IT change agent has spanned over 30 years in higher education.

3. Campus Notes

[GPN Universities Unveil Distance-Learning Program in Nuclear Engineering](#)

To help meet a growing demand for nuclear engineers, a group of universities, including Kansas State University and the University of Missouri at Columbia, has teamed up to sponsor online courses and swap information about the students taking



them. One goal is to eliminate the hassle for students to transfer credits among the participating institutions.

Other universities have used distance learning to teach nuclear engineering, but the new effort is probably the largest such program, said John P. Gutteridge, director of university programs in nuclear energy at the U.S. Department of Energy.

[The Big 12 Nuclear Engineering Consortium](#) will start the distance-education effort this spring using an information-sharing system, called [ExpanSIS](#), developed by Kansas State. The secure, Web-based system allows universities to jointly track information about course schedules, grades, student billing, and textbooks. Students can pay at their home institutions for the nuclear-engineering courses, which were developed by Kansas State, the University of Missouri at Columbia, Texas A&M University at College Station and the University of Texas at Austin.

[WSU Students will showcase virtual education program at I2 conference](#)

Students from Wichita State University will present the Strings! Kansas program at the Internet2 videoconferencing program coordinated by MAGPI on January 29.

Strings, Kansas! is a one-credit hour workshop in which WSU string students introduce stringed instruments to 4th and 5th graders in rural and underserved communities throughout Kansas. WSU students participating in the course will adopt these communities, engaging the 4th and 5th graders and learning about their lives. WSU students will also design, present, and interact with the rural students to foster their appreciation of music with stringed instruments. Interaction will be facilitated through distance technology, such as videoconferencing, blogging, and email.

[High Speed Network to Boost Research in South Dakota Universities](#)

South Dakota's connection to the information super highway is about to add some lanes, plenty of them in the form of fiber optic cable that will initially connect to ten locations in the state.

People across the state will benefit from the 50,000 megabytes per second. It means more information traveling at a faster speed and education could stand to benefit from that.

"We'll expand majors in undergraduate school, masters programs, Ph.D. programs, and it's best viewed as economic activity in this state," Board of Regents' Harvey Jewett said.

Among places connected by the South Dakota REED network will be the state's major universities. Those universities are trying to improve graduate programs and research, and this network is something they need.

"In a research project that generates huge amounts of data you just have to have this," Jewett said.

It would also connect the Sanford Underground Laboratory at Homestake with researchers from major universities who have visited that facility. Jewett says this network will make this state more attractive to others who are interested in research.

"It puts us in a whole new opportunity of reaching out and bringing disciplines into this state," Jewett said.

4. Funding Opportunities from the National Science Foundation

Note: [Bruce McMillin](#) from **Missouri Institute of Science and Technology** (formerly, the University of Missouri at Rolla) has been leading an effort among **GPN researchers** to form **working groups** to reply to the **NSF Cyber-Physical System RFP**. If you are interested in joining in this effort, please let us know.



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

Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (RISE) - Letter of Intent: February 5, 2008; Full Proposals: March 14, 2008, April 8, 2008, April 10, 2008 – dependant on topic

Center for Research at the Interface of the Mathematical and Biological Sciences (CIMBS) – Preliminary Proposal: December 24, 2007; Full Proposal: April 2, 2008.

Center for the Environmental Implications of Nanotechnology (CEIN) - Preliminary Proposal: December 10, 2007; Full Proposal: March 17, 2008. By invitation only.

Chemistry Research Instrumentation and Facilities: Cyberinfrastructure and Research Facilities (CRIF:CRF) – Full Proposal: February 1, 2008.

Cyber-Enabled Discovery and Innovation (CDI) - Full Proposal Window: March 28, 2008 - April 29, 2008; Next round, Letter of Intent Window: October 30, 2008 - November 30, 2008; Preliminary Proposal Window: December 7, 2007 - January 8, 2008.

Emerging Models and Technologies for Computation (EMT) - Full Proposal: March 13, 2008

Ethics Education in Science and Engineering (EASE) - Full Proposal: April 3, 2008

Expeditions in Computing - Letter of Intent: November 5, 2007; Preliminary Proposal: December 30, 2007; Full Proposal: April 1, 2008.

Foundations of Computing Processes and Artifacts (CPA) – Full Proposal: December 7, 2007.

Informal Science Education (ISE) - Preliminary Proposal: March 13, 2008; Full Proposal: June 19, 2008.

Information and Intelligent Systems: Advancing Human-Centered Computing, Information Integration and Informatics, and Robust Intelligence - Full Proposal for Medium Projects: October 23, 2007; Full Proposal for Large Projects: November 19, 2007; Full Proposal for Small Projects: December 10, 2007.

Innovative Technology Experiences for Students and Teachers (ITEST) - Letter of Intent: February 15, 2008 (for ITEST only); Full Proposal: April 10, 2008 (for Innovation through Institutional Integration), April 11, 2008 (for ITEST)

Petascale Computing Resource Allocations (PRAC) - Full Proposal: March 31, 2008

Postdoctoral Research Fellowships in Biology - Full Proposal: November 5, 2008.

Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring - Full Proposal: March 4, 2008; Annually

Research Experiences for Undergraduates (REU) – Full Proposal: June 6, 2008.

Science and Society (S&S) – Full Proposal: February 1, 2008.

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

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

Sustainable Digital Data Preservation and Access Network Partners (DataNet) – Preliminary Proposal: January 7, 2008; Full Proposal: March 21, 2008.

5. Recent Awards

NSF: Here are the new NSF awards that were registered since the last newsletter.

Arkansas



Start Date: 1/1/2008; **Atkinson, Thomas;** **STTR Phase I: Smart SAM for Visible Detection of Paralytic Shellfish Toxins;** White River Bioscience, Inc.; \$150,000; (740590).

Start Date: 1/1/2008; **Bielke, Lisa;** **SBIR Phase I: Use of Bacteriophages to Prevent Foodborne Illness Associated with Raw Produce;** BIODETECTION INSTRUMENTS LLC; \$100,000; (740575).

Start Date: 1/1/2008; **Evans, Christine;** **SBIR Phase I: Shape Variations in the Development of Miniature Micropumps;** SFC FLUIDICS, LLC; \$100,000; (740371).

Start Date: 1/1/2008; **Su, Xiao-Li;** **SBIR Phase I: A versatile valveless multichannel parallel bioassay system;** BIODETECTION INSTRUMENTS LLC; \$100,000; (740847).

Start Date: 2/1/2008; **Tchakhalian, Jak;** **CAREER: Exploring Artificial Quantum Matter;** University of Arkansas; \$79,923; (747808).

Start Date: 1/1/2008; **Thompson, Dale;** **RFID Information Systems Security (INFOSEC) for Nation-wide Engineering Education;** University of Arkansas; \$149,703; (736741).

Kansas

Start Date: 1/1/2008; **Clothier, Brian;** **SBIR PHASE I: Validation of Remotely Powered and Interrogated Microwire Temperature Sensors for Composites Cure Monitoring and Control;** Thermal Solutions, Inc.; \$99,998; (740294).

Start Date: 1/1/2008; **Ji, Hang;** **SBIR Phase II: An Innovative Method for Removing Resist from Wafers;** Uncopiers, Inc.; \$500,000; (750623).

Start Date: 1/1/2008; **Madanshetty, Sameer;** **SBIR Phase I: CMP Slurry Monitor;** Uncopiers, Inc.; \$100,000; (740982).

Start Date: 1/1/2008; **Walker, J. Douglas;** **Geoinformatics: Toward Developing a National Geoinformatics System (NGS) Workshop Series;** University of Kansas

Center for Research Inc; \$90,405; (744187).

Start Date: 4/1/2008; **Ward, Joy;** **CAREER: Plant Evolution at Low CO₂: Responses of Ice Age Trees;** University of Kansas Center for Research Inc; \$240,179; (746822).

Missouri

Start Date: 1/15/2008; **Belostotsky, Dmitry;** **Arabidopsis 2010: Affinity Handle on Macromolecular Complexes;** University of Missouri-Kansas City; \$500,000; (724168).

Start Date: 1/1/2008; **Choi, Baek-Young;** **On Optimization Issues In Supporting High Bandwidth Multimedia Applications;** University of Missouri-Kansas City; \$175,000; (729197).

Start Date: 1/1/2008; **Cox, Jerome;** **STTR PHASE I: Blended Clocked and Clockless Integrated Circuit Systems;** Blended Integrated Circuit Systems, LLC; \$149,883; (741055).

Start Date: 12/1/2007; **Crowley, Patrick;** **Support for the Symposium on Architectures for Networking and Communications Systems;** Washington University; \$5,000; (807168).

Start Date: 7/1/2008; **Fan, Xudong;** **CAREER: Fluorescence Resonant Energy Transfer in Opto-fluidic Ring Resonators for Ultrasensitive Biomolecule Detection;** University of Missouri-Columbia; \$400,000; (747398).

Start Date: 12/15/2007; **Harrington, Kenneth;** **PFI: Innovation Acceleration Partnerships;** Washington University; \$600,000; (650294).

Start Date: 7/1/2008; **Li, Jr-Shin;** **CAREER: Ensemble Control with Applications to Spectroscopy, Imaging, and Computation;** Washington University; \$399,999; (747877).

Start Date: 1/1/2008; **Liu, Kelly;** **Testing the hypothesis of pervasive two-layer azimuthal anisotropy beneath North America;** University of Missouri-Rolla; \$122,728; (739015).



Start Date: 3/1/2008; **Mabbs, Richard**; CAREER: Femtosecond Time Resolution in Electron Collision Initiated Reactions; Washington University; \$127,511; (748738).

Start Date: 1/1/2008; **Madria, Sanjay**; REU Site: Research and Training Experience for Undergraduates in the Area of Sensor Computing; University of Missouri-Rolla; \$300,000; (754959).

Start Date: 12/15/2007; **Medvedeva, Julia**; Electronic Band Structure Investigations of Complex Multi-Component Oxides for Photovoltaic Applications; University of Missouri-Rolla; \$138,000; (705626).

Start Date: 2/1/2008; **Patterson, Eric**; RUI: Quantum Characterization of Stair-Stepped Base Stacking Interactions in tRNA; Truman State University; \$158,033; (746096).

Start Date: 12/15/2007; **Wright, Barth**; Collaborative Research: Conservation and ecology of the Tonkin snub-nosed monkey at Khau Ca, Ha Giang Province, Vietnam; Kansas City University of Medicine and Biosciences; \$20,038; (716259).

Nebraska

Start Date: 11/15/2007; **Rajca, Andrzej**; Stable High-Spin Polyradicals and Chiral pi-Conjugated Systems; University of Nebraska-Lincoln; \$200,715; (718117).

Start Date: 1/1/2008; **Tao, Qingping**; STTR Phase I: Advanced Informatics for Chemical Imaging: Visualization, Mapping, and Analysis; GC Imaging; \$150,000; (741027).

Oklahoma

Start Date: 1/1/2008; **Holland, Orin**; SBIR Phase I: Hydrogen Passivation of As-Grown Defects in CdZnTe for Improved Gamma Detection; Amethyst Research Incorporated; \$99,336; (740785).

Start Date: 1/1/2008; **Mathew, Bijo**; SBIR Phase I: Nanocomposite Hydrophobic Photocatalyst for VOC Destruction; Bijhem Scientific, Inc; \$100,000; (740312).

Start Date: 1/15/2008; **Straka, Jerry**; Collaborative Research: Challenges in Understanding Tornadogenesis and Related Phenomena; University of Oklahoma Norman Campus; \$194,028; (733539).

South Dakota

Start Date: 1/1/2008; **French, Samuel**; STTR PHASE I: Application of an Electrostatic Actuator Stable-Range-of-Motion Enhancement Control Law to Improve MEMS Gyroscopic Sensors; MEMSense, LLC; \$149,865; (741195).

Iowa State University

Start Date: 1/15/2008; **Boushaba, Khalid**; Marrakesh International Conference and Workshop on Mathematical Biology; Iowa State University; \$20,000; (756669).

Start Date: 6/1/2008; **Hogben, Leslie**; Linear Algebra and Applications Graduate Summer School; Iowa State University; \$25,223; (753009).

Start Date: 3/1/2008; **Valenzuela, Nicole**; Gene Expression Response to Naturally Fluctuating Temperature in Turtles with Alternative Sex Determining Mechanisms; Iowa State University; \$130,000; (743284).
Start Date: 1/1/2008; **Valenzuela, Nicole**; SYMPOSIUM - REPTILE GENOMICS AND EVOLUTIONARY GENETICS, to be held January 2008 in San Antonio, TX. Iowa State University; \$7,010; (809547).

University of Minnesota

Start Date: 11/1/2007; **Banerjee, Subir**; Facility Support: Institute for Rock Magnetism; University of Minnesota-Twin Cities; \$393,556; (732473).

Start Date: 3/15/2008; **Bates, Daniel**; Interactions of Classical and Numerical Algebraic Geometry; University of Minnesota-Twin Cities; \$22,530; (756904).

Start Date: 5/1/2008; **Bischof, John**; Biotransport Symposium 2008 - Nano and multiscale frontiers in biological heat and mass transfer; University of Minnesota-Twin Cities; \$13,020; (808738).



Start Date: 1/1/2008; **Elliott, Ryan**; CAREER: Branch-Following and Bifurcation Methods to Identify Active Materials for Tomorrow's Sensors and Actuators; University of Minnesota-Twin Cities; \$402,306; (746628).

Start Date: 1/15/2008; **Frisbie, C. Daniel**; Nanoprobng Structural and Electrostatic Complexity in Organic Semiconductor Thin Films; University of Minnesota-Twin Cities; \$130,000; (706011).

Start Date: 11/15/2007; **Kass, Steven**; Organic Ion-Molecule Chemistry; University of Minnesota-Twin Cities; \$225,000; (718274).

Start Date: 12/15/2007; **Morin, Paul**; The Antarctic Geospatial Information Center: Collecting, Creating, Delivering and Archiving for the Community; University of Minnesota-Twin Cities; \$454,402; (753663).

Start Date: 1/15/2008; **Munson, Benjamin**; DHB / Collaborative Research: Using Machine Learning to Model the Interplay of Production Dynamics and Perception Dynamics in Phonological Acquisition; University of Minnesota-Twin Cities; \$123,621; (729277).

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

Missouri

Start Date: 1/1/2008; **Rao, Dabeeru C.**; Pre-doctoral Research Training in Human Genetic Epidemiology; Washington University; (1T32HL083822-01A2).

6. Upcoming Meetings

GPN Meetings

Bioinformatics/Computational Biology Teleconference — First Wednesday of every month at 2:00 p.m. Next: February 6, 2008. [Join here.](#)

GPN Representative Council Teleconference — Fourth Wednesday of every month at 10:00 a.m. Next: February 27, 2008.

GPN Research Advisory Board Teleconference - Second Wednesday of every quarter at 1:00 p.m.

GPNgrid Technical Administration - Alternate Fridays at 1:30 p.m. Next: February 8, 2008. [Join here.](#)

Middleware/Grid Teleconference — Alternate Fridays at 1:30 p.m. Next: February 1, 2008. [Join here.](#)

Regional Meetings/Workshops

MCBIOS 2008 - MidSouth Computational Biology and Bioinformatics Society Conference - February 23-24, 2008 in Oklahoma City, Okla.

Open Science Grid Grid School - 3-day course in large-scale and high-performance Grid Computing; February 6-8, 2008; Tuskegee University, Tuskegee, AL.

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>.

Leave your own comments and feedback too! GPN now has its own blog. [Register for the blog here.](#)