news & opportunities

THE UNIVERSITY of TENNESSEE KNOXVILLE

Research Scholarship Creative Activity

NSF funding to drop by 15% in federal budget for FY08

The number of new NSF research grants funded under the FY08 federal budget will be 15 percent below requested levels, reducing the actual number of awards by some 1,000, according to an analysis published recently in the American Institute of Physics electronic newsletter, *FYI*.

Shortages from the FY08 Consolidated Appropriations Act will reduce the number of graduate research fellows by 230, as well as the number of Faculty Early Career Development awards. In total, the Research and Related Activities account will receive $327 million less than requested, and the Education and Human Resources account will be short $25 million.

The shortfalls will force the deferral of solicitations in Computer and Information Science and Engineering, the Office of Polar Programs, and several Mathematical and Physical Science programs. The Major Research Instrumentation program will lose more than $20 million.

Several planned centers will be deferred, including two to three Materials Research Science and Engineering Centers and three Physics Frontiers Centers.

The AIP analysis (http://www.aip.org/fyi/2008/028.html) was prepared from documents from the NSF and the DOE Office of Science. The summary is based on a five-page letter sent by Samuel Bodman, Secretary of Energy, to Sens. Jeff Bingaman and Pete Domenici, ranking members of the Senate Committee on Energy and Natural Resources. See http://energy.senate.gov/public/_files/SignedlettertoSenBingamanrequest0.pdf.

EECS negotiates for Matlab software for UTK, system

The College of Engineering is seeking a site license for the Mathworks Matlab program, a suite of computational packages that has become the standard software used for engineering and mathematics in academic settings.

"We make use of this in so many classes," said Kevin Tomsovic, head of the department of electrical engineering and computer science. "It's pretty central to engineering education."

The proposal includes some 50-plus toolboxes and computational packages from Mathworks' Matlab and Simulink products, including toolboxes for aerospace, bioinformatics, communications control systems, filter design, financial, and other areas. Other toolboxes will be available for an additional charge.

The contract under negotiation will provide a one-year license with an optional two-year renewal. The software will be available to all faculty, staff, researchers, and students. Funding for the UTK site license has been arranged, but the cost of a systemwide license, as well as a source of funding for additional toolboxes, is still to be determined.

Bob Muenchen, manager of the Statistical Consulting Center in the Office of Information Technology, asks faculty who have specific computational needs not now included in the Matlab list to contact either Sue Smith (suesmith@utk.edu, 974-1614) or Randy Bond (rbond@utk.edu) in the College of Engineering.

For updates on progress, visit the EECS website on the Matlab license: http://www.eecs.utk.edu/matlab#background.

Complex rules cover human-subjects use

The Office of Research administers UT Knoxville's Institutional Review Board, which oversees all research conducted by faculty, staff, or students that involves human subjects. Brenda Lawson is the compliance officer for the Knoxville campus. She convenes the campus IRB and monitors day-to-day compliance issues. Below are highlights about from a recent talk she gave to graduate students in linguistics.

The goals of human-subject compliance regulations are (a) to prevent harm to the subjects, (b) to protect privacy and confidentiality, (c) to ensure fair treatment, and (d) to provide equal compensation for participation.

The definition of research is fairly straightforward: "a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge." But other activities can be considered research if they include data collection in human subjects, even if conducted under programs like demonstration or service programs.

Not all research efforts require compliance with human-subjects rules, but all that involve human subjects require IRB review. Studies may receive (a) full board review, (b) expedited or administrative review, or (c) exempt-study review.

A selection of reminders for research with human subjects:

1. Prior review: The Institutional Review Board must review all research involving human subjects *in advance* of the project's start.
2. Minimizing risk and harm: Studies involving human subjects must minimize risk, guarantee confidentiality and privacy, and safeguard vulnerable subjects.
3. Informed consent: A complex of requirements must be followed to ensure that human subjects know what they are agreeing to do.

Failure to follow human-subjects guidelines can subject researchers to liability, cause UT to lose its federal Wide Assurance of Compliance, and jeopardize acceptability of papers, dissertations, and other products of research.

Lawson (blawson@utk.edu, 974-7697) is available for individual consultation and to speak to faculty and/or graduate student groups on campus.

FAR rule adds business ethics training to awards

On 23 November 2007, the final version of the Federal Acquisition Regulation rule on contractor code of business ethics and conduct was issued in the Federal Register. The rule requires a written code of business ethics and conduct for all federal contracts exceeding $5 million with a performance period of 120 days or more, as well as a related employee training program.

Under the rule, contractors must have a written code in place within 30 days after receiving an award and all employees working on the contract must be provided the code. Within 90 days, contractors must put into place a training program and an internal control system that will facilitate discovery of improper conduct and ensure corrective measures.

Some agencies, including the Department of Defense, the Veterans Administration, the Environmental Protection Agency, and the Department of Homeland Security, require posters with fraud hotline information.

If you have questions about FAR requirements, please contact the Office of Research (research@utk.edu, 974-3466).

On the 25th: '*Britney vs. Chimps*'

"Britney Spears vs. Chimps with Spears" is the topic of a talk MSNBC science editor Alan Boyle will deliver on Tuesday, 25 March, at 8 p.m. in the Shiloh Room of the University Center. Subtitled "Talking about Science in a Tabloid Culture," the lecture will explore Boyle's insights about how science news can compete for public attention in a celebrity-mad society.

The annual science journalism lecture, which honors Alfred and Julia Hill, is free and open to the public. More information is available from Mark Littmann (littmann@utk.edu, 974-8156).

CCSI symposium papers online

Papers and poster presentations from the recent 30th annual research symposium put on by the College of Communication and Information are on line at http://www.cci.utk.edu/symposium/program.

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UT Grad School of Medicine gets new compliance officer

William Wallace has been named research compliance officer in the Office of Research Integrity at the UT Graduate School of Medicine in Knoxville.

Wallace, a Texan, earned his undergraduate degree from Louisiana Tech and his J.D. from the school of law at Mississippi College.

He was in private practice for 13 years and is currently adjunct faculty in the UT College of Law.

He may be involved with UT Knoxville faculty who do research involving human subjects through the Graduate School of Medicine.

New Hughes program offers aid for mid-career researchers

The Howard Hughes Medical Institute has announced a major effort to support biomedical research by making post-startup funds available to scientists who are moving out of the junior phase of their career and are searching for funding that will allow full pursuit of their midcareer research goals.

The 2009 HHMI Early Career Scientist Competition will choose up to 70 biomedical researchers who need six years of reliable funding as they are coming out of their first awards or start-up grants. The applicants must have shown originality and productivity, as well as exceptional promise for future research contributions.

Basic eligibility requirements include a doctoral degree, a tenure-track position, and two to six years of experience since appointment as an assistant professor.

More information is available at http://www.hhmi.org/research/competitions/earlycareer2009/ec2009_key_points.pdf.

"Inside Higher Ed" also has an article about the Hughes program: http://www.insidehighered.com/news/2008/03/10/hhmi.

NIH officials to talk on women's health research, grants workshop

Officials from the National Institutes of Health will be on the UT Knoxville campus on 25 March 08 to offer a grants workshop and to present an address on research on women's health.

At 11 a.m., Dr. Teresa Levitin will give a one-hour NIH grants workshop in University Center room 223-224. Donuts and coffee will be available in the room at 10:30 a.m.

Dr. Vivian Pinn, director of the NIH Office of Research on Women's Health, will speak at 2 p.m. in the Shiloh Room at the University Center. Her topic is women's health research and health disparities. An informal reception will start at 1:30 p.m. in UC room 220.

The meetings and receptions are open to students and faculty. Pinn's address will be webcast. Contact Cheryl Travis (ctravis@utk.edu), the chair of Women's Studies, about a URL for the webcast.

Send us your good news TODAY . . .

Faculty and staff should have received the newest biweekly newsletter from the UT Office of Research on 12 March. The bright yellow letter — *Awards & Recognition* — is designed to help UT Knoxville faculty and staff keep up with awards that they and their colleagues are winning for research and other sponsored activities.

It also will include news of any research or scholarly achievement or recognition received by UTK faculty.

If you have news to contribute, please send it to Bill Dockery (dockeryb@utk.edu), preferably by the Wednesday preceding expected publication.

Awards & Recognition will alternate weekly with this newsletter, *News & Opportunities*.

Virtual Organizations as Sociotechnical Systems (VOSS)

Virtual organizations are increasingly central to the scientific and engineering projects funded by the NSF. The agency's Office of Cyberinfrastructure is supporting research directed at understanding what constitutes effective virtual organizations and under what conditions those organizations can enable and enhance scientific, engineering, and education production and innovation. The NSF is looking to disciplines like anthropology, complexity sciences, computer and information sciences, decision and management sciences, economics engineering, sociology, public administration, and other related social sciences to explore sociotechnical systems using techniques as varied as ethnographies, surveys, simulations, experiments, network analyses, and other qualitative and quantitative approaches.

Important date: Final proposal to UTOR, 27 May 08, at 8 a.m.

VOSS solicitation: http://www.nsf.gov/pubs/2008/nsf08550/nsf08550.htm?govDel=USNSF_175

Communicating Hurricane Information (CHI)

In collaboration with the National Oceanic and Atmospheric Administration, the National Science Foundation is calling for proposals on advancing the fundamental understanding of communication of hurricane outlooks, forecasts, watches, and warnings to decision-makers and to the general public. Proposals must have at least one investigator from the social, behavioral, or economic sciences and at least one from the physical sciences or engineering. The research occurs in the context of American residential migration patterns, new communications channels and outlets, and more precise and accurate forecasting information from the National Weather Service. NSF expects the results of the research to be relevant to communication about other hazards.

Important date: Final proposal to UTOR, 28 May 08 at 8 a.m.

CHI solicitation: http://www.nsf.gov/pubs/2008/nsf08551/nsf08551.htm?govDel=USNSF_25

Graduate Research Supplements (GRS)

In an effort to broaden participation especially among under-represented students in engineering Ph.D. programs, the NSF is receiving requests for graduate research supplements from principal investigators who have existing awards from the Directorate of Engineering. Support is available to only one Ph.D. student for each NSF research project. The supplements are renewable for up to three years, depending on the student's progress and the availability of funds.

Important date: The proposal must be submitted through FastLane by 12 May 2008. Detailed information is available at http://www.nsf.gov/pubs/2008/nsf08030/nsf08030.jsp?govDel=USNSF_25.

Reminder: All electronic proposals are due to the UT Office of Research at **8 a.m.** a full **five business days** before the agency deadline.

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Awards & Recognition is published biweekly for the faculty of UT Knoxville by the UT Office of Research, 1534 White Ave., Knoxville, TN 37996-1529. For more information, contact Bill Dockery (dockeryb@utk.edu, 865-974-2187).