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News and Opportunities

Office of Research & Engagement

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## Office of Research, News & Opportunities, December 02, 2009

University of Tennessee Office of Research

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## Dates set for 2010 undergraduate research exhibition

UT Knoxville's annual Exhibition of Undergraduate Research and Creative Activity will be held 24-25 March 2010 in the University Center Ballroom.

Coordinated by the UT Office of Research, EURCA is in its 14th year of spotlighting undergraduate achievement in disciplines ranging from agricultural sciences and art to the natural sciences and social work. The Office of Research sponsors the program in cooperation with the Office of the Chancellor.

Faculty who are mentoring undergraduates in research, scholarship, or creative activities are encouraged to make their students aware of the EURCA opportunity.

**Key dates:** Applications are due 12 February and abstracts must be in by 5 March to Jane Taylor ([tayloje@utk.edu](mailto:tayloje@utk.edu), 865-974-0437) in the Office of Research.

**Details:** <http://research.utk.edu/eurca/>

## Five new proposal development courses offered in spring

Five new courses on proposal development will be offered by the Office of Research in spring 2010 for UT faculty seeking to begin or increase their involvement in sponsored programs.

The courses include

- NSF Career and BRIGE Awards
- Building the NEH Grant Proposal
- Building an Interdisciplinary Research Team
- Career Development Grants for Pre- and Postdocs
- Strategies for Success in Sponsored Research

The five courses offered in fall 2009 will also be available in the spring semester, including

- Writing Successful Grants, Parts 1 & 2
- Finding Funding
- Building the NSF Grant Proposal
- Building the NIH Grant Proposal

**Contact** Robert Porter ([reporter@utk.edu](mailto:reporter@utk.edu)) with specific questions.

**Details:** <http://research.utk.edu/pd/training.shtml>

## Nominations open for two Chancellor's Awards in 2010

The Office of Research is soliciting nominations for the Chancellor's Awards for Professional Promise in Research and Creative Achievement and the Chancellor's Awards for Research and Creative Achievement. Four faculty will be selected for each award, and each honoree will receive a certificate of achievement and a \$3,000 award.

The Professional Promise awards recognize exceptionally talented junior faculty members for their professional potential in research and creative achievement. Eligibility is limited to tenured or tenure-track faculty members at the assistant or associate professor rank who by the end of 2009-2010 have fewer than 10 years professional experience beyond their terminal degree. Nominees must have a minimum of three years of service on the faculty of the University of Tennessee. An individual may only receive this award once.

The Achievement awards recognize tenured faculty members who have received national and/or international recognition in their field and who have more than 10 years of professional experience beyond their terminal degree. Candidates nominated previously for the Achievement awards can be renominated, but faculty who received the award between spring 1998 and spring 2009 are ineligible for the 2010 competition. Distinguished Scientists and Chairs of Excellence are not eligible for nomination.

Each small UT academic department or budgetary unit at Knoxville may submit the name and credentials of one nominee for each category of award. Larger departments (20 or more faculty members) may submit two nominations for each category.

Awards will be announced at the Chancellor's Honors Banquet to on 7 April 2010.

**Key date:** 12:00 noon, Friday, 29 January 2010, submission of nominations to Research Awards Committee, 1534 White Avenue, Campus 1529 (Attn.: Jane Taylor).

**Details:**

Professional Promise: <http://research.utk.edu/funding/cappirca.shtml>

Cover letter: [http://research.utk.edu/forms\\_docs/cappirca\\_2010.pdf](http://research.utk.edu/forms_docs/cappirca_2010.pdf)

Achievement: <http://research.utk.edu/funding/carca.shtml>

Cover letter: [http://research.utk.edu/forms\\_docs/carca\\_2010.pdf](http://research.utk.edu/forms_docs/carca_2010.pdf)

## NSF report: Earned doctorates grew by 1.4% in '08

U.S. academic institutions awarded 48,802 research doctorate degrees in 2008, the sixth consecutive annual increase in U.S. doctoral awards and the highest number ever reported by the National Science Foundation's Survey of Earned Doctorates.

The total number of doctorates increased 1.4 percent over 2007's total of 48,112, which was the smallest annual increase during the last six years, according to the NSF's Science Resources Statistics division.

The Survey of Earned Doctorates is a census of all individuals who receive a research doctorate from a U.S. academic institution in a given academic year. The 2008 census covers individuals who earned doctorates in the academic year beginning July 1, 2007, and ending June 30, 2008.

Specifically, 32,827 science and engineering (S&E) doctorates were awarded in 2008, an increase of 3.2 percent over 2007, and a 20.4 percent increase since 1998.

Awards of doctoral degrees were up in five of the eight major science fields in 2008: biological sciences, computer sciences, mathematics, psychology, and social sciences. Biological sciences received the greatest number of doctorates, 7,793, or 16 percent of all S&E doctorates.

Similarly, doctorates awarded in computer science increased 7.9 percent over 2007 and had the largest rate of increase among science fields during the past decade, nearly doubling from 1998 to 2008.

At the other end of the spectrum, the number of doctorates awarded in non-S&E fields fell to 15,975 in 2008, 2.1 percent below the 2007 total, but up 4 percent over 1998. The number of doctorates awarded in education fields was up 2.1 percent, but doctorates declined in health 1.6 percent, humanities 7.1 percent, and professional fields 2.9 percent in 2008.

The proportion of temporary visa holders among doctorate recipients continues its upward trend, increasing from 23.3 percent in 1998 to 33.1 percent in 2008. The rate at which temporary resident doctorate recipients report definite post-graduation commitments to remain in the United States is also increasing. In 1998, 68.4 percent of temporary resident doctorate recipients with definite commitments for employment or postdoctoral training reported an intention to remain in the U.S. upon graduating; this proportion increased to 78.2 percent in 2008.

**Details:** <http://www.nsf.gov/statistics/inbrief/nsf10308>

## State Department to fund institutes for international students

The U.S. Department of State is soliciting proposals for the design and implementation of approximately 15 institutes that will bring student leaders from Southeast Asia and the Middle East to provide groups of highly motivated undergraduates with in-depth seminars on global environmental issues, new media, religious pluralism, social entrepreneurship, and women's leadership.

Participants in the program, known as the Study of the U.S. Institutes for Student Leaders, will be highly motivated undergraduate students from colleges, universities, and other institutions of higher education in selected countries overseas who demonstrate leadership through academic work, community involvement, and extracurricular activities. Their major fields of study will be varied and will include the sciences, social sciences, humanities, education, and business. All participants will have a good knowledge of English and will have demonstrated interest in the institute's theme. Every effort will be made to select a balanced mix of male and female participants, and to recruit participants who are from non-elite or underprivileged backgrounds, from both rural and urban areas, and have had little or no prior experience in the United States or elsewhere outside of their home country.

Participants will be identified and nominated by the U.S. Embassies and Consulates and/or Fulbright Commissions with final selection made by State's Bureau of Educational and Cultural Affairs. Each institute will host up to 20 participants, for a total of approximately 300 students.

Approximately \$3.6 million will be distributed in up to five awards, depending on the availability of funds in FY 2010. There are constraints on funding levels for organizations with less than four years experience in conducting international exchange programs.

**LIMITED SUBMISSION:** The University of Tennessee can submit no more than one proposal under this solicitation. Notification of interest required by 8 December 2010 to [limitsub@utk.edu](mailto:limitsub@utk.edu).

**Key date:** 14 January 2010.

**NOTE:** Applicants should submit paper copies of the proposal instead of using grants.gov (<http://exchanges.state.gov/grants/open2.html>).

**Details:** <http://exchanges.state.gov/media/pdfs/rfgps/rfgp011410.pdf> form

### NOTICE: Phi Beta Kappa members sought

Jeff Kovac, president of the UT Knoxville chapter of Phi Beta Kappa Society, is collecting names of all faculty and staff who are members of the society. Plans include developing a new web site for the chapter that will include a roster of all faculty and staff members and their department or unit. An online form for self-identification is available at <http://www.utk.edu/go/29>. Contact Kovac ([jkovac@utk.edu](mailto:jkovac@utk.edu)) with questions.



## Opportunities

The UT Office of Research presents selected opportunities of potential interest to UT Knoxville faculty. Due to space limitations, the listing cannot be comprehensive but indicates the number and breadth of possible support for research and scholarship. The Office of Research can help faculty develop strategies for identifying funding sources for their research agenda. Contact the office at 865-974-3466.

### Senior Scholar in Aging

The Ellison Medical Foundation Senior Scholar program in Aging supports established investigators working at institutions in the U.S. to conduct research in the basic biological sciences relevant to understanding lifespan development processes and age-related diseases and disabilities. The award is intended to provide significant support to established investigators in order to allow the development of new, creative research programs by investigators who may not currently be conducting aging research or who may wish to develop new research programs in aging. The foundation seeks to stimulate new research that has rigorous scientific foundations but that may not be currently funded adequately because of perceived novelty or high risk, or because it is from an area where traditional research interests absorb most funding. Senior Scholar awards provide funding up to \$150,000 per year for a four-year period.

Specific areas of interest include, but are not limited to: structural biology, molecular genetics, studies with model systems ranging from lower eukaryotes to humans, inquiries testing the relevance of simpler models to human aging, genetic epidemiology of aging (candidate longevity genes), aging in the immune system, host defense molecules in aging systems, mechanisms of free radical induced cell aging, mechanisms of aging in various differentiated cell populations, gene/environment and gene/gene interactions, integrative physiology, and new approaches to age-modulated disease mechanisms.

**Key date:** 4 March 2010, letter of intent submitted to Ellison Medical Foundation.

**Details:** [http://www.ellisonfoundation.org/adsp.jsp?key=12aging\\_senior\\_proc&show=100](http://www.ellisonfoundation.org/adsp.jsp?key=12aging_senior_proc&show=100)

### Boeing Welliver Faculty Fellowship Program

Through its Welliver Faculty Fellowship Program, the Boeing Company seeks to expose a small number of competitively selected professors from U.S. and international universities to key elements and the business realities of industry by enabling them to “look over the shoulder” of working professionals at several levels of the technical, business, and management career paths. They will leave the program with an understanding of Boeing’s business including its research needs, with an improved understanding of the practical application of technical and business skills and with a network of contacts within Boeing and among their faculty peers that can form the basis of long-term relationships.

The objectives of the program are (1) to provide faculty with a better understanding of the practical industry application of engineering, manufacturing, information technology, and business skills; (2) to help faculty enhance the content of undergraduate education in ways that will better prepare tomorrow’s graduates for careers in a global environment; and (3) to have faculty observe the Boeing environments, processes, and procedures with “fresh perspectives.” Faculty will use their expertise to help identify areas for possible improvements and document their observations at Boeing.

**Key dates:** 31 December 2009, submission of application; 14 June–6 August 2010, eight-week program.

**Details:** <http://www.boeing.com/educationrelations/facultyfellowship/index.html>

### HP Labs Innovation Research Program

The Hewlett-Packard Co. is seeking opportunities for breakthrough collaborative research between HP and colleges, universities, and institutes internationally. Community of Science reports that the research will take place in five broad areas:

- Information explosion: Acquiring, analyzing, and delivering the right information to individuals and businesses so they can act on it
- Dynamic cloud services: Developing web platforms and cloud services that are dynamically personalized based on location, preferences, calendar, and communities
- Content transformation: Enabling the fluid transformation of content from analog to digital, from device to device, and from digital content to physical products
- Intelligent infrastructure: Designing smarter, more secure computing devices, networks, and architectures that work together to connect individuals and businesses to rich, dynamic content, and services
- Sustainability: Creating technologies, IT infrastructure, and new business models for the low-carbon economy that save money and leave a lighter footprint on the world.

**Key dates:** 7 December 2009, call for proposals published; 29 January 2010, deadline for submission of abstracts.

**Details:** [http://www.hpl.hp.com/open\\_innovation/irp/](http://www.hpl.hp.com/open_innovation/irp/)

### NIH Diet Composition and Energy Balance (R01) (PA-07-218)

The National Institutes of Health is soliciting proposals for projects to study the role of diet composition in energy balance, including studies in both animals and humans. Collaborations between basic and clinical researchers that explore mechanisms underlying differences in response to diet composition are encouraged. Both short and longer-term studies are encouraged, ranging from basic studies investigating the impact of micro- or macronutrient composition on appetite, metabolism, and energy expenditure through clinical studies evaluating the efficacy of diets differing in micro- or macronutrient composition, absorption, dietary variety, or energy density for weight loss or weight maintenance.

**Key date:** 5 February 2010, submission.

**Details:** <http://grants1.nih.gov/grants/guide/pa-files/PA-07-218.html>

### NIH updates requirements for “Responsible Conduct” instruction

The National Institutes of Health has revised its requirements for instruction in the responsible conduct of research. The NIH supports six basic principles of responsible conduct of research and requires that all trainees, fellows, participants, and scholars receive instruction in the principles.

**Details:** <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

## Support for undergraduates . . .

### HS-STEM Summer Internship Program

The U.S. Department of Homeland Security (DHS) sponsors a 10-week summer internship program for eligible rising juniors and seniors majoring in homeland-security-related science, technology, engineering, and mathematics (HS-STEM) disciplines. The DHS HS-STEM Summer Internship Program provides students with the opportunity to conduct research in 17 DHS mission-relevant research areas at federal research facilities. (See <http://www.orau.gov/dhsed/2010pages/researchareas.html>.)

The goal of this program is to engage a diverse, educated, and skilled pool of scientists and engineers in HS-STEM issues and to promote long-term relationships between student researchers, the DHS Science and Technology Directorate, and federal research facilities to enhance the HS-STEM workforce.

**Key dates:** 5 January 2010, submission of application form and other documents; 12 January, submission of supporting materials.

**Details:** <http://www.orau.gov/dhsinternships/>

### DHS Scholarship Program

The U.S. Department of Homeland Security is supporting the country’s science and technology community by providing the DHS Scholarship Program, which provides funding for undergraduates pursuing studies in any of 17 homeland security research areas. Eligible students must be studying in an HS-STEM field with an interest, major, or concentration directly related to one of the research areas. The program is part of the DHS Science and Technology Directorate, which has as a goal organizing scientific and technological resources to prevent or mitigate the effects of catastrophic terrorism against the United States or its allies.

**Key date:** 5 January 2010, submission of an online application form; 12 January, submission of supporting materials.

**Details:** <http://www.orau.gov/dhsed/2010pages/scholarship.html>

**REMINDER: Proposals to be submitted electronically to funding agencies must be in the Office of Research Sponsored Programs unit five business days before the agency deadline.**