Research at the University of Tennessee College of Veterinary Medicine

Chattanooga Creek Environmental Justice Program Holds First Environmental Conference

The National Institute of Environmental Health Sciences supports a partnership program that encourages community outreach, training, research, and education in order to reduce exposure to environmental toxicants in underserved populations.

Residents of one of these communities, the Chattanooga Creek Superfund site, participated in an environmental college this summer to learn about the hazards of living in a contaminated area and what they can do at the grassroots level to protect themselves and their children from diseases associated with urban pollution,” explains Dr. Patricia K. Tifeth, an educator and researcher involved with the project. Dr. Tifeth is studying the effects of environmental pollutants, specifically polycyclic aromatic hydrocarbons (PAHs), on other coccidioiids. PAHs may augment arteriosclerosis by a process that involves endothelial cell damage.

 cell damage. Data collected from the Chattanooga Creek site suggest that PAHs present there could exert potentially deleterious effects on cardiovascular system of both animals and humans who live there.

The urban creek and its adjacent floodplain at the Superfund site in Chattanooga were contaminated by PAHs found in coal tar mixtures. From 1918 until at least the late 1970s, several coal carbonization facilities are thought to have discharged processing water into the creek and dumped coal tar waste into the creek. That practice, which ceased with the first antitrust action in 1983, continues to be of environmental concern. The Environmental Protection Agency designated PAHs as one of its most hazardous sites on the National Priorities List, hence the “Superfund” title. Construction is ongoing to control potential or actual human exposure.

In August, Dr. Tifeth and other involved researchers held the program’s annual retreat to discuss year two of the grant. Also involved in this project are NAS’s environmental justice grant co-investigators Mary Rogge (Department of Social Work), Kim Davis and Debbie Perkins (Institute for a Safe and Sustainable Environment), and Larry McKay (Earth and Planetary Sciences).

In July, Dr. Jerry Roberson presented four talks at the American Veterinary Medical Association Annual Meeting of the American Association of Veterinary Dermatologists in Nashville, TN. In his talk "Using population pharmacokinetic considerations.  Participants were especially interested in the steroid adrenal panel methods used in this study. He noted that one of the main challenges with the current methods is the need to adjust the results for patients with different weights.

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The 14 applications were chosen based on their research capabilities, workforce, community acceptance, and construction and operations. For the next phase of review, the consortium will submit additional information and review the evaluation of the project. If the consortium’s site progresses, a site visit will be conducted by the Department of Homeland Security, which expects to make a decision by the end of the year and hopes to begin construction on the project by 2009.

Funding deadlines...

New faces...


In June, Dr. Frank Andrews and five other authors presented a poster at the Joint RRI-NIRA Gastrointestinal Tract Microbiology Symposium in Aberdeen, Scotland.

Dr. Nicholas Frank presented two talks in June about equine metabolic syndrome as part of the poster session at the World Equine Cardiology Symposium in Oklahoma City, OK. In his talk “The importance of renal parameters in the diagnosis of acute renal failure,” Dr. Frank highlighted the clinical relevance of renal function parameters in horses with renal failure and discussed the challenges in monitoring these parameters.

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Welcome, Grad Students!

The Comparative and Experimental Medicine graduate program welcomes eight new students for the fall semester.

Christina Bishop hails from Knoxville, where she earned a B.S. in medical technology from UT. She will work on a Ph.D. with Dr. Karla Matteson.

Having recently finished her M.S. work in animal science at UT, Robin Ciswell will be pursuing her Ph.D. and working on a project with Dr. Stephen Kania and Dr. Robert Donnell. Robin is from Knoxville.

Dr. Jason Headrick of Wisconsin will be working with Dr. Darryl Millis for his Ph.D. He earned his D.V.M. from the University of Wisconsin-Madison.

Having earned a B.S. in biology from the Massachusetts Institute of Technology, Karissa Laughter will be working on her M.S. under the direction of Dr. Agricola Odoi. Karissa is from El Granada, CA.

Amanda Peretchie from Harrisonburg, VA, will be working on her M.S. with Dr. Madhu Dhar. Amanda earned a B.S. in biology from James Madison University.

Xin (Lucy) Xu will be pursuing a Ph.D. with Dr. Xuemin Xu. Xin earned a B.S. in biological sciences from Jilin University in China.

Dr. Sharvan Sehrawat, who will be working on his Ph.D. with Dr. Barry Rouse, earned a B.V.S.C. and an M.V.S.C. from the CCS Haryana Agricultural University in India.

Nichelle Whitlock will be working on her Ph.D. under the direction of Dr. Seung Joon Baek. Nichelle, who is originally from Stafford, VA, earned a B.S. in biological sciences from UT.

AECA

from p. 1

Technologies being developed with funding from a variety of federal agencies may be deemed sensitive and applicable, but currently no contracts or grants in the CVM fall in this category. As the research environment at the UTCVM evolves, the AECA may become a major compliance issue, especially if the KY/TN proposal for the National Bio- and Agro-Defense Facility is selected.

The recent UT investigation is still ongoing, but a conviction for violating the AECA can result in up to ten years in prison, a $1 million fine, or both.

The CVM will host an information seminar entitled “Export Control: What Researchers Need to Know” at noon Sept. 20 in A335. For further questions regarding the AECA, please contact the CVM research office.

First Annual CEM Graduate Student Picnic Held

Comparative and Experimental Medicine graduate students and their families and friends enjoyed a late summer barbecue and picnic Aug. 27 at Carl Cowan Park. The picnic was an opportunity for students to get to know each other better as well as meet some of the CEM graduate studies staff.

ETHESIS/DISSERTATION WORKSHOPS

5:30-7:00 Sept. 14
9:30-11:00 Sept. 15
Hodges Library Auditorium

Deadline Sponsor Program $ Amount/ yr. URL

Sept. 13 Alliance for Cancer Gene Therapy Young investigator 166,666 (3 yrs.) www.acgefoun dation.org

Sept. 15 AAALAS Foundation Lab animal education and outreach 30,000 foundation.aaalas.org

Sept. 15 American College of Veterinary Internal Medicine Foundation ACVIM members, residents, and multi-center clinical research grants 12,500 to 20,000 w w w . a c v i m . o r g

Oct. 1 Philip Morris Postdoc fellowships 40,000 (2) none

Oct. 1 American Association of Equine Practitioners Equine researchers (Residents) 15,000 www.aaep.org

Oct. 1 NIH New grants varies www.nih.gov

Oct. 2 Grayson Jockey Club Equine health and performance and post-grad 15,000 to 45,000 www.grayson-jockeyclub.org

Oct. 15 American Cancer Society Basic, pre-clinical, applied, and clinical research; postdoc fellowships up to 200,000 (5) www.cancer.org

Nov. 1 Morris Animal Foundation Canine, feline, cam, eloid, equine, wildlife, preproposals 7,500 to 50,000 www.morris animalfoundation.org

Nov. 1 NIH Competing or revised varies www.nih.gov

Nov. 1 American College of Veterinary Surgeons Foundation Residents, clinical research, minimally invasive surgery 10,000 to 50,000 www.acvs.org

FY 2006 Funding Up 9.7% From 2005

Researchers at UTCVM brought in $6,981,842 in grant funding during fiscal year 2006, a 9.7% increase from 2005. If this trend continues, UTCVM will likely reach $7.5 million by year-end 2007.

Mendis-Handagama on Review Panel

Recently, Dr. Charmi Mendis-Handagama was chosen for a National Institute of Environmental Health Sciences Special Emphasis Panel. Only eight members were chosen to serve on this panel to review grant applications addressing reproductive assessments in rodents. Scientists are chosen based on recognized authority in their field, and they must be a principal investigator on a research project comparable to those being peer reviewed. Reviewers like Dr. Mendis-Handagama go through an extensive nomination process to be able to sit on the panel.

External Grant Funding Nears $941,000 since June

Since 2005, NIH has strongly encouraged researchers to deposit articles completed with partial or full NIH funding to PubMed Central (PMC). The option may eventually become a requirement.

Although many journals already deposit all published articles into PMC, other who do not will often retain copyright that prohibits the author from depositing the article himself.

For example, JAMA, a journal that does not submit its articles automatically to PMC, indicates that it requires all authors to sign an agreement that transfers copyrights to the AVMA upon publication. Furthermore, a representative from JAMA says that a substitution for that agreement will not be accepted.

However, other journals have found a compromise by allowing blanketied permission to post NIH-funded research articles to PMC at least six months after publication. For example, JAMA adopted an opt-out policy. Authors may allow the author to post the accepted, not published, version of the manuscript on PMC. Researchers benefit from submitting their articles to PMC since submission partially fulfills NIH program preprint requirements by substituting deposit for submission of paper copies. In addition, submission to public access publication like PMC might heighten the visibility of the research and enhance the likelihood of early and increased citation.

Because of federal pressure to enhance public access to research results and because of technology that is changing scholarly communication, the move toward open access may change the way manuscripts are published. But for now, the impact factors for some open access journals remain low.

However, since many open access journals have not been in existence long enough for Thomson Scientific to track the impact factors for more than a few years, those impact factors may soon begin to rise, creating a new environment for scholarly publishing. If that shift occurs, copyrights might also increasingly stay in the hands of the author.

Discovery:
Research at the University of Tennessee College of Veterinary Medicine (2006.1) 3

Research Resource Spotlight

ScienceCareers Provides Electronic Grant Submission Advice

Electronic grant submission (or manuscript submission, for that matter) can be frustrating, to say the least. And once Murphy’s Law kicks in, it can be downright disheartening. That’s why ScienceCareers put together a list of potential problems and their solutions. Their advice comes from personal interviews and NIH documentation about how to make the electronic submission process less stressful.

Save your work often. Most software programs allow you to adjust the automatic recovery setting, which will recover your file even if you experience a power outage. Also, “Ctrl + S” on a PC is the universal “save” shortcut (“Command + S” on a Mac). Make it a habit to use it often, especially if you take your hands away from the keyboard.

Use Windows on a PC. Although Mac users will eventually be able to submit without complications, some glitches still exist in many of the systems for Mac users.

Convert each file to a pdf. Unless requested otherwise, a pdf will almost guarantee the recipient will see what you see on the screen. But check the pdf before you submit to make sure it looks the same as the original.

The complete article, including advice specific to NIH, can be found at scienceca reers.org: search “NIH electronic submission.”

FY 2006 UTCVM Funding Totals

<table>
<thead>
<tr>
<th>Program</th>
<th>Amount</th>
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<td>Role of lysophosphatidic acid and other lipid peroxidation products in smoking-induced atherosclerosis</td>
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<td>Development of an optimal protocol for evaluating insulin resistance and insulin sensitivity in humans</td>
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<tr>
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<td>Clinical pharmacology residency support</td>
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<td>$1,000,000</td>
<td>GIK channels, beta-adrenergic signaling, and breast cancer</td>
</tr>
<tr>
<td>$1,000,000</td>
<td>Antioxidant stress and oxidative stress in dogs with diabetes mellitus</td>
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Conclusion:

With NIH’s Open Access Policy, change scholarly communication?
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Research Resource Spotlight

AAEP Foundation

The American Association of Equine Practitioners (AAEP) Foundation has announced the recipients of its annual Young Investigator Award.

Young investigator award winners:

• Philip Morris, Postdoc fellowships $40,000 (2) none

• Nicholas Baek, Young investigator $166,666 (3 yrs.) www.aecforganization.org

• Amanda Perrerich, Lab animal education and outreach $30,000 foundation.aalas.org

• Susan McCallum, ACVIM members, residents, and multi-center clinical research $12,500 to 20,000 w w w . a c v i m .org

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