



University of Tennessee, Knoxville  
**Trace: Tennessee Research and Creative  
Exchange**

---

Discovery Research Newsletter

Veterinary Medicine -- Other Materials  
(Newsletters, Reports, Etc.)

---

Fall 2009

## Discovery Fall 2009

Misty Bailey  
*Editor*

Follow this and additional works at: [http://trace.tennessee.edu/utk\\_discovery](http://trace.tennessee.edu/utk_discovery)

---

### Recommended Citation

Bailey, Misty, "Discovery Fall 2009" (2009). *Discovery Research Newsletter*.  
[http://trace.tennessee.edu/utk\\_discovery/4](http://trace.tennessee.edu/utk_discovery/4)

This Article is brought to you for free and open access by the Veterinary Medicine -- Other Materials (Newsletters, Reports, Etc.) at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Discovery Research Newsletter by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

## In this Issue

p1—new NIH applications, plagiarism detection; p2—bovine TB workshop, Love award, Elsevier e-mail fraud, publications; p3—open access funding, Schuller ARRA award, grant awards; p4—presentations, publications cont.

## NIH Restructures Applications for Jan. 25 Submissions

As of January 25, 2010, faculty applying for NIH grant awards will see some changes. The changes are to align the new peer review criteria (see winter 2008/2009 issue of *Discovery*) to the content of the applications and to reduce the size of the applications.

The most noticeable changes will be with the new, reduced page limits. For R01 awards, the **Research Plan** will be limited to 12 pages (vs. the former 25 pages). For R03s and R21s, the limit will be 6 pages (vs. 10 pages).

Section headings will also change, according to the following table:

Background & significance	• Research strategy
Preliminary studies/Progress report	• Significance
Research design & methods	• Innovation
	• Approach
	• Preliminary studies (new appl.)
	• Progress report (renew/revise appl.)



The **Facilities and Other Resources** section will require an explanation of how the scientific environment will contribute to the success of the project, and the **Biosketches** will include a new personal statement and will limit publications to 15. Publications should be chosen based on recency, relevance, and importance.

Other portions of the application package will be renumbered, making any previous instructions obsolete. The new application packages will be made available in December 2009, and faculty should download a new application package and new instructions for all submissions due Jan. 25 or later. Previous application forms will be automatically rejected by Grants.gov. ☺

## Popular Journal Publisher Starts Plagiarism Detection

Lippincott Williams and Wilkins (LWW) publishes over 300 journals, including *Anesthesia and Analgesia*; *Arteriosclerosis, Thrombosis, and Vascular Biology*; *Current Opinion in Infectious Diseases*; and *Epidemiology*.

Now, LWW will also be scanning submissions to some of these journals with a plagiarism detection program. According to LWW, the CrossCheck program database contains over 20 million journal articles with which to compare new submissions.

The new system has been put into place to curtail the growth in plagiarism that has occurred as a result of electronic access to

scientific information.

CrossCheck works by compiling a similarity report that shows overall originality and a detailed summary of any text found to match sources in the database. The system also has the ability to exclude direct quotes from the report.

The company warns, however, that the system is used as a preliminary screening tool; a high similarity report indicates only that the publisher should take a closer look at what was submitted, not necessarily that plagiarism took place. Red-flag manuscripts are further reviewed by LWW staff. ☺

## Bovine TB Investigative Workshop Held

**D**r. **Agricola Odoi** and colleagues from Colorado State University and USDA organized an investigative workshop titled “Modeling the Impact of Cattle Movements on Transmission Dynamics of Bovine Tuberculosis in the United States.”

The workshop, which attracted scientists from around the globe, was sponsored and hosted by the National Institute for Mathematical and Biological Synthesis (NIMBioS) and was held at the University of Tennessee, Knoxville, July 7-9, 2009. In keeping with the NIMBioS focus, the workshop involved talks about how mathematical modeling might affect disease transition models to help reduce the spread of bovine TB. Details are available at [www.nimbios.org/workshops/WS\\_BovineTB.html](http://www.nimbios.org/workshops/WS_BovineTB.html). ☞

## Recent Publications

**Alvarez L, Whittemore JC.** Liver enzymes and the canine patient: physiology and pathophysiology. *Compend Cont Ed Pract Vet.* 2009;31:408–414.

**Alvarez L, Whittemore JC.** Liver enzymes and the canine patient: a stepwise diagnostic approach. *Compend Cont Ed Pract Vet.* 2009;31:416–425.

**Choudhary S, Wang H-C R.** Role of reactive oxygen species in proapoptotic ability of oncogenic H-Ras to increase human bladder cancer cell susceptibility to histone deacetylase inhibitor for caspase induction. *J Cancer Res Clin Oncol.* 2009;135:1601–1613.

**Egger CM, Souza MJ, Greenacre CB, Cox S, Rohrbach B.** Effect of intravenous administration of tramadol hydrochloride on the minimum alveolar concentration of isoflurane in rabbits. *Amer J Vet Res.* 2009;70:945–949.

**Frank LA.** Canine alopecia X. In: Mecklenburg L, Linek M, Tobin DJ, eds. *Hair Loss Disorders in Domestic Animals.* Ames, Iowa: Wiley-Blackwell;2009: 148–155.

**Haddow AD, Odoi A.** The incidence risk, clustering, and clinical presentation of La Crosse virus infections in the Eastern United States, 2003–2007. *PLoS ONE.* 2009;4:e6145. doi:10.1371/journal.pone.0006145.

**Haddow AD, Jones CJ, Odoi A.** Assessing risk in focal arboviral infections: are we missing the big or little picture? *PLoS ONE.* 4:e6954. doi:10.1371/journal.pone.0006954.

## Love Wins Resident Abstract Award

**D**r. **Lydia Love**, resident in the Large Animal Clinical Sciences Department, placed third in the resident abstract competition at the recent American College of Veterinary Anesthesiologists/International Veterinary Emergency and Critical Care Symposium in Chicago.

Her abstract was titled “The effect of ketamine on the MACBAR of sevoflurane in dogs” and was co-authored by **Egger CM, Doherty T, and Rohrbach B.** The abstract is a result of Love’s residency project. ☞

As with other phishing E-mails, the publisher recommends not responding to the E-mails or opening any attachments or links. Instead, Elsevier has set up a fraudulent E-mail system to which these messages may be forwarded: [emailabuse@elsevier.com](mailto:emailabuse@elsevier.com). ☞

## Fraudulent Elsevier E-Mails Circulating

**P**ublisher Elsevier wants its authors to know that several fraudulent E-mails have been circulating that appear (falsely) to originate from Elsevier.

These E-mails have subject lines reading “Manuscript Submission,” “Call for Papers,” and “Editorial/Reviewer Appointment” and are asking authors to either pay a handling fee for article processing or to pay a fee to sign up as a reviewer.

Elsevier is investigating the origin of the E-mails but warns its authors that communication from Elsevier will not come from E-mail addresses ending in gmail, hotmail, or any other free E-mail service.

**Hance MW, Mason JI, Mendis-Handagama SMLC.** Effects of photo stimulation and nonstimulation of golden hamsters (*Mesocricetus auratus*) from birth to early puberty on testes structure and function. *Histol Histopathol.* 2009; 24:1417–1424.

**Hill WA, Randolph MM, Mandrell TD.** Sensitivity of perianal tape impressions to diagnose pinworm (*Syphacia* spp.) infections in rats (*Rattus norvegicus*) and mice (*Mus musculus*). *J Am Assoc Lab Anim Sci.* 2009;48:378–380.

**Hofmeister EH, Brainard BM, Egger CM, Kang S.** Prognostic indicators for dogs and cats with cardiopulmonary arrest treated by cardiopulmonary cerebral resuscitation at a university teaching hospital. *J Am Vet Med Assoc.* 2009;235:50–57.

**Hudson L, Newkirk K, Chandler H, Choi C, Fossey S, Parent A, Kusewitt D.** Cutaneous wound reepithelialization is compromised in mice lacking functional Slug (*Snai2*). *J Dermatol Sci.* 2009;56:19–26.

**Iguchi G, Chrysovergis K, Lee SH, Baek SJ, Langenbach R, Eling TE.** A reciprocal relationship exists between nonsteroidal anti-inflammatory drug-activated gene-1 (NAG-1) and cyclooxygenase-2. *Can Lett.* 2009;282:152–8.

**Kennedy M.** An update on feline infectious peritonitis. *Vet Med.* Aug. 1, 2009. Available online at: <http://veterinarymedicine.dvm360.com/vetmed/Medicine/An-update-on-feline-infectious-peritonitis/ArticleStandard/Article/detail/615188>.

**LeBlanc A, Wall J, Morandi F, Kennel S,**

**Stuckey A, Jakoby B, Townsend D, Daniel GB.** Normal thoracic and abdominal distribution of 2-deoxy-2(18F) fluoro-d-glucose (18FDG) in adult cats. *Vet Radiol Ultrasound.* 2009; 50:436–441.

**Legendre A, Bartges J.** Effect of polyprenyl immunostimulant on the survival times of three cats with dry form of feline infectious peritonitis. *J Feline Med Surg.* 2009;11:624–626.

**Mao G, Tan T, Sisodia SS, Cui M-Z, Xu X.** The GxxxG motif in the transmembrane domain of APP plays an essential role in the interaction of CTF $\beta$  with the  $\gamma$ -secretase complex and the formation of amyloid- $\beta$ . *J Alzheimer's Dis.* 2009;18:167-176.

**Newkirk K, Rohrbach B.** A retrospective study of feline eyelid tumors. *Vet Pathol.* 2009;46:916–927.

**Peretich AL, Abbott LL, Andrews FM, Dhar MS.** Age-dependent regulation of sodium-potassium adenosinetriphosphatase and sodium-hydrogen exchanger mRNAs in equine nonglandular mucosa. *Am J Vet Res.* 2009;70:1124–1128.

**Souza MJ.** Bacterial and parasitic zoonoses of exotic pets. *Vet Clinics of N Am – Exotic Anim Pract.* 2009;12:401–415.

**Stieve-Caldwell EL, Morandi F, Souza M, Adams WH.** What’s your diagnosis? Otitis externa, media and interna in a Dutch rabbit. *J Am Vet Med Assoc.* 2009;235:665–666.

**Sykes JM, Cox S, Ramsay EC.** Evaluation of an osmotic pump for fentanyl administration

## Research Resource Spotlight



### UTCVM Faculty Eligible for Open Access Publishing Support Funds

Publishing in an open access journal just got even better—UTCVM faculty are eligible to apply for university funds that cover open access article processing fees up to \$3,000.

To be eligible for the funds, faculty should take these steps to apply:

- Request a waiver or reduction of charges from the publisher.
- Apply before an article has been accepted or immediately thereafter.

Authors with more than one article may request funds more than once as long as a separate application is filed.

Faculty with sufficient funding from grants or contracts are encouraged not to request funds in order to allow others to share in the benefit of open access.

Any open access publication will be considered, and a list of publishers who provide open access is available on the fund's Web site, along with the application form: <http://www.lib.utk.edu/openpub/program.html>.

October 19-23 is **Open Access Week**, so celebrate by submitting to an open access journal and requesting funding from UT's open access support fund. ☺

### Schuller Research Project Receives Prestigious NIH Challenge Grant Award

In April, the scramble was on around the country for researchers to apply for a piece of the millions of dollars in new NIH Challenge Grant funds, made possible by the American Recovery and Reinvestment Act (ARRA).

At the end of the funding cycle, over 20,000 applications were received, but only 841 were funded—an approximate 4% payline and a dismal funding rate compared to the usual 10%.

Dr. Hildegard Schuller's application was one of those funded grants, and the only one funded from UT Knoxville. In



addition, it was one of only 152 in the country to be funded at the full level of \$1 million over 2 years.

Schuller's application, entitled "Modulation of cancer prevention by social stress," focuses on how chronic psychological stress might stimulate the development and progression of cancer, thus counteracting the effects of cancer preventive agents, particularly in lung and pancreatic cancers.

Dr. Schuller is a distinguished professor in the Department of Pathobiology and has been funded as an independent investigator by the NIH since 1986. ☺

### UTCVM Investigators Bring In Over \$1.2 M for Recent Sponsored Projects

Title	PI	Agency	Start date	Type	\$ Amount
Pharmacokinetics of morphine, butorphanol, meloxicam, and tramadol pain relievers in bearded dragons ( <i>Pogona vitticeps</i> )	C Greenacre	Morris Animal Foundation	10/1/09	Yr 1/1	30,927
Veterinary career pathways for under-represented minorities: enhancing veterinary admissions success	WA Hill	North Carolina State University	4/1/09	1/1	5,400
Population pharmacokinetics of carboplatin in dogs	T Martin-Jimenez	Morris Animal Foundation	10/1/09	3/3	12,145
Developing non-surgical pet contraceptives	LC Mendis-Handagama	Alliance of Women Philanthropists—Giving Circle	9/1/09	1/1	18,000
The GABA-B-R-mediated prevention of pancreatic cancer	HM Schuller	NIH	9/30/09	1/5	294,088
Modulation of cancer prevention by social stress	HM Schuller	NIH	9/30/09	1/2	500,000
Terrestrial mammal health studies	MJ Souza	Private industry	7/8/09	1/2	32,850
Pharmacokinetics and pharmacodynamics of Tramadol HCl in Hispaniolan Amazon parrots	MJ Souza	Morris Animal Foundation	7/1/09	1/1	50,536
The role of the new zeta cleavage in ABeta formation	X Xu	NIH	4/9/09	3/3	291,305



## Recent Presentations

**Egger CM, Qu W, Johnson SA.** Development of sustained release formulations of buprenorphine in dogs: pharmacokinetics and pharmacodynamics. At: American College of Veterinary Anesthesiologists/International Veterinary Emergency and Critical Care Symposium; September 11, 2009; Chicago, IL.

**Frank LA, Black C, Kania SA, Mullins R, Bemis DA.** Carriage of methicillin resistant *Staphylococcus pseudintermedius* in dogs. At: American Society for Microbiology/European Society of Clinical Microbiology and Infectious Diseases Conference on Methicillin-resistant Staphylococci in Animals; September 22-25, 2009; London, England.

**Gibson C, Black C, Kania S, Bemis D, Odoi A.** Spatial patterns of methicillin-resistant staphylococcal infections in Knox County, Tennessee, USA. At: Twelfth Conference of the International Symposium of Veterinary Epidemiology and Economics; August 10-14, 2009; Durban, South Africa.

**Greenacre C.** Diagnostic testing in the field: the researcher's perspective on thyroid testing in the Psittacine birds. At: 30<sup>th</sup> Annual Association of Avian Veterinarians Conference and Expo; August 10, 2009; Milwaukee, WI.

**Hecht S, Adams WH, Smith JR, Thomas WB.** CT and MRI findings in intracranial fungal disease in dogs and cats. At: Meeting of the International Veterinary Radiology Association/European Association of Veterinary Diagnostic Imaging/European College of Veterinary Diagnostic Imaging; July 26-31, 2009; Buzios, Brazil.

## Publications, cont. from p. 2

in cats as a model for nondomestic felids. *Am J Vet Res.* 2009;70:950–955.

**Tan M, Hao F, Xu X, Chisolm G, Cui M-Z.** Lysophosphatidylcholine activates a novel PKD2-mediated signaling pathway that controls monocytic THP-1 cell migration. *Arterioscler Thromb Vasc Biol.* 2009;29:1376–1382.

**Tobias KM.** *Manual of Small Animal Soft Tissue Surgery.* Ames, IA: Wiley-

**Hes MA, Prado T, Whitlock B.** Hemicastration of a Tennessee Walking Horse stallion with hematocele. At: Society for Theriogenology & American College of Theriogenologists Annual Conference; August 2009; Albuquerque, NM.

**Kania S.** al Cassette chromosome (SCCmec): evidence of recent transfer from *Staphylococcus aureus* to *Staphylococcus pseudintermedius*. At: American Society for Microbiology/European Society of Clinical Microbiology and Infectious Diseases Conference on Methicillin-resistant Staphylococci in Animals; September 22-25, 2009; London, England.

**Krahwinkel DJ.** Thoracic surgery. Invited seminars at: Association of Soft Tissue Surgeons of the United Kingdom; October 16-17, 2009; Bristol, England.

**Love L, Egger CM, Doherty T, Rohrbach B.** The effect of ketamine on the MACBAR of sevoflurane in dogs. At: American College of Veterinary Anesthesiologists/International Veterinary Emergency and Critical Care Society meeting; September 11, 2009; Chicago, IL.

**Mendis-Handagama SMLC, Ariyaratne HBS.** Effects of neonatal-prepubertal thyroid hormone treatment on postnatal Leydig cell differentiation in anti-Mullerian hormone overexpressing mice. In: Proceedings of the Society for the Study of Reproduction; July 2009; Pittsburg, PA. Abstract 679.

**Newman S.** A unique presentation of rabies in a horse. At: Midwest Pathology Meeting; August 13–14, 2009; Turkey Run State Park, IN.

**Odoi A.** GIS technology in veterinary research and practice: how useful is it? Invited seminar at: Faculty of Veterinary Medicine, Makerere University; August 27, 2009; Kampala, Uganda.

**Pedigo A, Odoi A.** Geographic access to myocardial infarction and stroke care in Tennessee. At: ESRI Health GIS Conference; September 21-23, 2009; Nashville, TN.

**Pedigo A, Noltenius M, Ralston B, Odoi A.** Spatial clusters of stroke mortality risk in Tennessee during 1999-2005. At: ESRI Health GIS Conference; September 21-23, 2009; Nashville, TN.

**Peck J, Whitlock B, Prado T.** Feline ovarian remnant syndrome. At: Society for Theriogenology & American College of Theriogenologists Annual Conference; August 2009; Albuquerque, NM.

**Prado ME, Oliff KE, Rogers GW, Kojima CJ, Apley MD, Pighetti GM.** Association of a single nucleotide polymorphism in the CD18 gene of angus cattle with incidence of bovine respiratory disease. At: Bovine Respiratory Disease Symposium; August 2009; Colorado Springs, CO.

**Prado T.** Pruebas de fertilidad y cirugía reproductiva en toros y el garrón [Fertility testing and reproductive surgery in stud bulls]. Invited presentation at: X Congreso Nacional de Medicina Veterinaria [X National Veterinary Medicine Conference]; August 19-21, 2009; Panama City, Panama.

Blackwell;2010. [Students from the class of 2008 soft tissue surgery elective course were contributing authors for 17 chapters; class of 2009 students edited chapters.]