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Discovery Fall 2008

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Knowledge Compassion

DISCOVERY

Research at the University of Tennessee College of Veterinary Medicine

Vol. 3, Issue 3
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In this Issue p1–public access of research, Knowles training; p2–agency projects, Sukhthankar award, gift authorship, publications (cont.); p3–revenue from industry, presentations (cont.), research awards; p4–publications and presentations

National Institutes of Health Public Access Law: The Who's, What's, Why's, and How's

Who: NIH-funded investigators whose research publications (in part or in full) arise as a result of NIH funding (also, see right).

What: These publications must be deposited into PubMed Central (PMC) immediately upon acceptance for publication to be released by PMC at least one year after their original publication.

Why: Responding to demands from taxpayers, who ultimately fund NIH research, NIH mandated PMC deposition in April 2008 after rescinding a policy that only recommended deposition. Because PMC is a free public database, it allows widespread dissemination of public-funded research.

How: *Method A*–Publish in a journal that automatically complies with the law without author involvement. *Method B*–Arrange for the publisher to deposit a specific article, usually for a fee. *Method C*–Deposit the peer-reviewed manuscript (not the published article) yourself through the NIH Manuscript Submission System (NIHMSS). *Method D*–Complete the submission process for a manuscript deposited in NIHMSS by the publisher. See *publicaccess.nih.gov/*.

And: A list of journals that submit NIH-funded papers without author involvement is found at *publicaccess.nih.gov/submit_process_journals.htm.*

NIH's PubMed Rule Extends to Grant Proposals

Reference formatting for NIH grant proposals and progress reports has seen a PubMed Central (PMC)-related adjustment. Effective May 25, 2008, PMC reference numbers (or the NIH manuscript submission reference number) must accompany all publications in the reference list that were authored or co-authored by the principal investigator and that also arose from full or partial NIH support.

NIH had already required its investigators to deposit their federally funded, research-related publications into the public domain using PMC immediately upon acceptance of publication. Requiring the PMC number (PMCID) on grant proposal references serves as a checkpoint to ensure investigators are complying with NIH policy.

These PMCIDs may be manually added to the end of each pertinent article or added using EndNote to all articles. If the PMCID is not yet available because the journal submits articles directly to PMC, an acceptable alternative is "PMC Journal – In Process." A guide on how to add the PMCID in EndNote can be found at *becker.wustl.edu/pdf/PMCID-Endnote.pdf* via the Bernard Becker Medical Library at the Washington University School of Medicine.

The Spread of Public Access: *No Longer Just an NIH Policy*

Wellcome Trust, Howard Hughes Medical Institute, British Heart Foundation. *The common thread?* All three funding agencies require publications resulting from their sponsorship to be deposited into the PubMed Central database.

Foundations and other private sponsors have begun to catch up with government in making their sponsored research results available to those who ultimately pay for it. Other agencies will likely mimic this trend, making it a good idea for all investigators to start voluntarily depositing every publication (unless it is prohibited, e.g. with certain industry sponsors).

Knowles Attends Radiation Training in Japan

Amy Knowles, UTCVM occupational health nurse, recently participated in radiation research training with the Radiation Effects Research Foundation in Hiroshima, Japan. This joint United States/Japan organization focuses on the health of the atomic bomb survivors from Hiroshima and Nagasaki.

Knowles attended the 2-week training in September as part of her dissertation research (College of Nursing) and also plans to interview atomic bomb survivors about their experiences.

Will This Agency Fund My Project?

How to Know if that Proposal is Worth the Time & Effort

Determining whether a research project fits the goals of a funding agency can sometimes feel like guessing the number of jellybeans in a jar at a carnival. But many funding agencies make available the abstracts (or at least the titles) of previously and recently funded projects. These are a terrific source of information for someone wondering if Morris Animal Foundation (MAF) is sponsoring llama research these days, for example.

In fact, MAF has one of the largest compilations of abstracts of previously-funded research. This document is available in print in the UTCVM Research Office.

Most agencies also post abstracts on their Web sites. For example, the American Heart Association lists all its current awardees, albeit with titles only.

So, is MAF interested in llama research? Yes, they are currently funding 10 studies related to llama health, one of them right here at UTCVM (S Cox). ☙

Sukhthankar Receives AICR Scholarship

The American Institute for Cancer Research announced that **Mugdha Sukhthankar**, graduate student in **Dr. Seung Joon Baek's** laboratory, has received a scholarship to attend their annual research conference.

The scholarship, which is sponsored by the Campbell Soup Company, will cover registration and help offset travel and hotel expenses. Sukhthankar will be presenting a poster at the conference as well. ☙

Gift Authorship Places *Lancet* Authors Under Fire

After a research paper from an Austrian medical university was withdrawn from *Lancet* under allegations of improper human subjects procedures in a trial of stem cell treatment for incontinence, several authors of the paper also sought to retract their names from it, claiming no part in the trial despite signing the journal's contributorship statement confirming their roles in the research.

This incident prompted *Lancet* to stress in an editorial that "Honorary or gift authorship is unacceptable. Using gift authorship as an excuse for not taking responsibility for research . . . should not be tolerated" (qtd. in Dyer).

To qualify for authorship, each author must have participated in 1) conception, design, acquisition, analysis, and interpretation of the data; 2) drafting or revising the article for important intellectual content; **AND** 3) final approval of the paper to be published. ☙

Sources: Dyer C. *Lancet* withdraws research paper and warns authors about rules of "gift authorship." *BMJ*. 2008;337:a1711.

International Committee of Medical Journal Editors. *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication*. Philadelphia, PA: ICMJE; 2006.

Publications from p. 4

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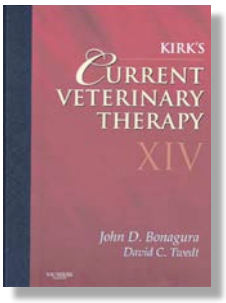

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Flatland B. Hepatic support therapy. 554-556.

Gompf R, Bonagura JD. Vetricular septal defect. 748-751.

Hendrix DVH. Differential diagnosis of the red eye. 1175-1177.

Johnson B, DeNovo RC, Mears EA. Canine megaesophagus. 486-491.

Lane I,Westropp JL. Urinary incontinence and micturition disorders: pharmacologic management. 955-959.

Lusby A, Kirk C. Obesity. 191-195.

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Research Resource Spotlight

Generating Revenue from Industry Partners

by Joy Fisher, Director
UT Research Foundation

You might recall that in July, we highlighted a few success stories for generating new research revenues from industry partners.

So the question is: How can you do this with your research?

There are three elements critical for getting a company interested in your work:

1. The research must address a problem in the market that needs better solutions. Our examples in the July edition of this newsletter included researchers who have been able to develop new techniques to solve such problems. Their work attracted the interest of companies willing to invest in further developing these applications for commercial sale.

2. Your ideas (called "intellectual property" or "IP," for short) are legally protectable. As a rule, companies are only willing to fund the development and eventual launch of new products that can be protected by a patent. Since public disclosure can prevent patent protection, we encourage you to disclose your ideas for IP evaluation before you make any public disclosure (publication of a manuscript, publication of an abstract, presentation at a meeting, etc.). This leads to the third critical element….

3. The disclosure of your ideas to the UT Research Foundation (UTRF) is critical for its future commercial use. The invention disclosure is the first step toward protecting intellectual property developed at UT.

The disclosure form is easy to fill out–access it at *utrf.tennessee.edu* under Faculty Resources, Forms or contact our office for assistance (we are happy to help). Once the disclosure form is complete, submit it to the CVM research office. They will assign the disclosure to UTRF, who will contact you to learn more about your work. We look forward to working with you!

To learn more about how to protect your intellectual property and generate new funding, contact Stacey Patterson at UTRF: *sspatter@utk.edu*; 974-3140. Visit our Web site at *utrf.tennessee.edu*. ☙

Presentations
from p. 4

symposium in Phoenix, AZ, in September. **The abstract received an honorable mention in the ACVA residents' forum.**

In August, **MJ Souza** (co-authors **CB Greenacre**, JS Avenell, **J Phillips, M Fry**, GB Daniel, and **S Newman**) presented "Intestinal T-cell lymphosarcoma in a yellow-naped Amazon parrot" at the Association of Avian Veterinarians Annual Conference in Savannah, GA. At that same conference, she also presented "Conjunctival xanthoma in a blue and gold macaw" (co-authors **N McLean, D Ward**, and **K Newkirk**).

H-C R Wang was an invited speaker at the 8th International Conference on Anticancer Research held in Los, Greece, in October. He presented "Role of reactive oxygen species in the pro-apoptotic ability of oncogenic H-Ras to facilitate apoptosis induced by histone deacetylase inhibitors" and "Precancerous carcinogenesis cellular model of human breast epithelial cells for dietary prevention." ☙

UTCVM Investigators Earn $305,862 for Sponsored Projects Since July

Title	PI	Agency	Start date	Type	$ Amount
The evaluation of SIS for surgical repair of hysterotomy incisions at the time of cesarean delivery	HS Adair	Cook Biotech	8/18/08	Extension	15,626
Evaluation of a transformed *E. coli*-based Bordetella bronchiseptica vaccine by experimental infection	BW Fenwick	Strategic Veterinary Sciences	9/1/08	Yr 1 of 1	41,361
Cardiology resident support	CA Kirk	VCA Antech	7/1/08	1/3	4,680
Nutrition resident agreement	CA Kirk	Hill's Pet Nutrition	7/1/08	2/5	30,000
Sponsored clinical pharmacology residency agreement	T Martin-Jimenez	Pfizer Animal Health	8/1/08	3/4	1,401
Evaluation of the effects of Azodyl on azotemia in large felines	SL McCain	Vetoquinol	9/1/08	1/1	3,875
Identifying neighborhoods lacking timely access to heart attack and stroke care in the East Tennessee Appalachian region	A Odoi	American Heart Association–Southern	7/1/08	1/2	65,876
Evaluation of cryobiopsy instrumentation and cellsave blood collections in dogs with lymphoma	JC Phillips	NIH-NCI	7/1/08	1/1	17,250
Evaluation of the mTOR inhibitor Rapamycin in dogs with osteosarcoma	JC Phillips	Morris Animal Foundation	7/1/08	1/1	4,293
Agriculture emergency responder training	SR Thompson	Knox County	9/8/08	1/1	50,000
Carcinogenesis cellular model for identifying preventive agents	H-C R Wang	NIH-NCI	9/1/08	2/2	72,500

Recent Publications . . .

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Allender MC, Mitchell MA, Dreslik MJ, Phillips CA, Beasley VR. Measuring agreement and discord among hemagglutination inhibition assays against different ophidian paramyxovirus strains in the Eastern massasauga (*Sistrurus catenatus catenatus*). *J Zoo Wildl Med*. 2008;39:358-61.

Baek SJ, Lee SH. Epicatechin gallate and anticancer effects in colon cancer cells. In: Preedy VR, ed. *Beer in Health and Disease Prevention*. St. Louis, MO: Academic Press Elsevier;2008.

Bemis DA, **Bryant MJ, Kania SA**, **Newman SJ**. Isolation of *Arcanobacterium hippocoleae* from a case of placentitis and stillbirth in a mare. *J Vet Diagn Invest*. 2008;20:688-691.

Hao F, Tan M, Xu X, Cui M-Z. Histamine induces Egr-1 expression in human aortic endothelial cells via the H1 receptor-mediated protein kinase Cδ-dependent ERK activation pathway. *J Biol Chem*. 2008;283:26928-26936.

Hecht S, ed. *Röntgendiagnostik in der Kleintierpraxis* [*Diagnostic Radiology in Small Animal Practice*]. Stuttgart, Germany: Schattauer;2008.

The following UTCVM authors contributed to the above textbook for a total of 17 chapters: **F Morandi, WH Adams, GA Henry, M Souza, J Schumacher,** and **S Hecht.**

Holford AL, Tobias KM, Bartges JW, Johnson BM. Adrenal response to adrenocorticotropic hormone in dogs before and after surgical attenuation of a single congenital portosystemic shunt. *J Vet Intern Med*. 2008;22:832-838.

Howell NE, Hamilton C, **New J, Brace J, Lane I**. Linking veterinary and human public health education: collaborations at the University of Tennessee. Invited article. *J Vet Med Educ*. 2008;35:203-206.

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Kirzeder EM, Frank LA, **Sowers KD, Rohrbach BW, Donnell RL**. Influence of inflammation and coat type on oestrogen receptor immunohistochemistry. *Vet Dermatol*. 2008;19:264-270.

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cont. on p. 2

. . . And Presentations

In August, **S Adair** gave a talk entitled "Equine aquatic therapy" at the 5th International Symposium on Rehabilitation and Physical Therapy in Veterinary Medicine, hosted by the University of Minnesota in Minneapolis.

Representing UTCVM October 9-10 at the UT Obesity Research Center Retreat at Fall Creek Falls in Pikeville, TN, were **SJ Baek** ("Molecular targets of obesity")**, M Dhar** ("P type ATPases in obesity and diabetes"), and **A Lusby** ("Adiponectin mRNA expression in the cat")**.**

At the 14th International Conference on Plastination in Heidelberg, Germany, **RW Henry** gave two invited lectures entitled "Room-temperature impregnation with cold-temperature silicone products" and "Excellent brain and tissue slices in one week using P40." He was also co-author on four other presentations.

RW Henry also presented at the European Association of Veterinary Anatomists' XXVII Congress held in Budapest, Hungary, in July. His oral presentations were entitled "The bovine kidney as experimental model in urology: external gross anatomical contribution" and "Arterial supply to the female emu reproductive tract." He was co-author on a poster entitled "Bovine kidney: anatomical relationships between the renal venous arrangement and the kidney collecting system" and one other oral presentation.

L Frank was an invited lecturer at the 13th Midwest Skin Seminar in Madison, WI, in September. Topics were thyroid mysteries, Cushing's disease, atypical Cushing's and sex hormones, methicillin-resistant Staphylococci, endocrine look-alikes, and interactive cases.

Since July, a Webinar by **N Frank** has been available at *thehorse.com*. Entitled "Equine metabolic syndrome: diagnosis and management," the presentation was given at the Department of Veterinary Science Equine Diagnostic and Research Seminar at the Gluck Equine Research Center in Lexington, KY.

In September, **N Frank** presented at the British Equine Veterinary Association Congress in Liverpool, UK. The presentation was entitled "Endocrinopathies: which test and when?"

Through CVC Central, **M Kennedy** presented continuing education in Kansas City, MO, in August. Topics were viral respiratory pathogens, viral enteritides, emerging viral diseases, FIP, feline retroviruses, vaccinations, avian influenza, and viral diagnostics.

Presenting "Selected zoonoses of Tennessee: prevention and control" at the Tennessee Public Health Association annual meeting in Franklin, TN, in August was **J New**.

SJ Newman presented "Inclusion body disease in boids" at the Midwest Association of Veterinary Pathologists this August, taking place at the Hueston Woods Resort Park, College Corner, OH.

The abstract "The effect of Midazolam on the isoflurane MAC preventing motor movement in dogs" was presented by **R Seddighi** (co-authors **C Egger, T Doherty**, A Greer, **B Rohrbach**, and **S Cox**) at the 14th International Veterinary Emergency and Critical Care–American College of Veterinary Anesthesia

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THE UNIVERSITY of TENNESSEE
College of Veterinary Medicine

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