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Discovery Winter 2012

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Re-publishing a Published Image (Even if You Created It)

Q: “I can reuse that graph I created for my article in *JAVMA*, right?” **A:** Yes and no. Most journals ask that authors sign a copyright transfer agreement before an article is published. Once that is filed, the author no longer has the right to re-publish a graph or other image that has been published. Instead, permission must be given by the publisher.

Q: “I have to get permission to use my own creation? What a hassle!” **A:** Most publishers make the process simple, easy, and fast. Below is some information about the most common practices.

When an article is online, a “request permissions” link is usually found associated with each article. Some publishers generate their own permissions requests, but most large publishers use Rightslink, a service from the Copyright Clearance Center, that often provides immediate written permission after a request is made by answering a series of short questions. To use Rightslink, users must create a free account. If a fee is charged (rarely) for reuse, a price estimate is provided.

Many publishers are also signatories to the International Association of Scientific, Technical & Medical Publishers’ Permissions Guidelines (<http://www.stm-assoc.org/permissions-guidelines/#>). Those that opt out of receiving express permissions requests (including Elsevier, Wiley, and Nature) give automatic permission for reuse of a small amount of material: up to three figures or 400 words from a specific article. But remember, if you’re unsure, request permission.

These same steps can be taken to request permission to re-use an image created by someone else. Remember to give proper credit in all instances of reuse, and that’s all there is to it!

☺

Check Your Funding Record in TERA/PAMS

In 2011, the new TERA/PAMS proposal system went live. Not only must investigators use this electronic system in place of the paper routing form, but they should also be pro-active in checking their funding records to ensure accuracy between the previous database and the new one.

The system itself may be accessed at <https://utia.tera.tennessee.edu/ramses/>, and a link is also included on the UTCVM Research Web site.

To check your awards, after signing into the TERA/PAMS main page, select “My Awards” in the “Award Dashboard” box. To check submitted proposals, select “My Proposals” in the “Proposal Dashboard” box.

Verify both active and inactive awards, paying particular attention to begin and end dates and amounts.

If something is missing or erroneous, contact Tammy Berry. ☺

Roberson is American Indian Science and Engineering Society Professional of the Year

Large Animal Clinical Sciences associate professor **Jerry Roberson** was recently named the American Indian Science and Engineering Society Professional of the Year recipient. He received the award, which is presented for overall leadership and technical achievement, at a conference in Minneapolis.

Roberson (Cherokee) was honored for his dairy research, specifically mastitis diagnosis, treatment, and prevention and important findings related to the over-use of antibiotics in dairy farms and bacteria resistance. In addition, the society recognized his hands-on teaching style, which has garnered considerable praise and multiple awards.

Roberson (seen at right) also founded and advises the Native American Student Association at UT.

☺



Brian Research Honored by Pfizer Animal Health

Dr. **David Brian**, professor in Biomedical and Diagnostic Sciences, was one of the recipients of the 2011 Pfizer Animal Health Award for Research Excellence. The award recognizes researchers whose innovative studies have advanced the scientific understanding of veterinary medicine.

Brian's research focuses on coronavirus, which can cause diseases of the respiratory tract of mammals and birds, including farm animals and pets. But the virus's most obvious claim to fame is its association with the common cold and SARS in humans.

When cells are infected with coronavirus, the virus hijacks the cells' ability to build their own proteins in favor of virus proteins. For years, scientists assumed that this hijacking process involved a "cap" site. This cap is a special tag at the end of an mRNA molecule where the virus enters. However, the

coronavirus also seems to have a cap-independent mechanism, otherwise known as an internal entry site.

Brian has been working to characterize this entry site and determine if the virus or cell "switches" between cap-dependent

and cap-independent entry. More knowledge of this riboswitch may allow scientists to exploit the regulation of the riboswitch in coronavirus-infected cells, and thus develop ways to treat diseases caused by the virus in animals and humans alike. ☺



Recent Publications

Al-Wadei HA, Al-Wadei MH, Schuller HM. Cooperative regulation of non-small cell lung carcinoma by nicotinic and Beta-adrenergic receptors: A novel target for intervention. *PLoS One* 2012;7(1):e29915.

Al-Wadei HA, Al-Wadei MH, Ullah MF, Schuller HM. Gamma-amino butyric acid inhibits the nicotine-imposed stimulatory challenge in xenograft models of non-small cell lung carcinoma. *Curr Cancer Drug Targets* 2012;12:96-106.

Al-Wadei HA, Plummer HK, Ullah MF, Unger B, Brody J, Schuller HM. Social stress promotes and {gamma}-aminobutyric acid inhibits tumor growth in mouse models of non small cell lung cancer. *Cancer Prev Res* 2012;5:189-196.

Al-Wadei HA, Ullah MF, Al-Wadei MH. GABA (γ -aminobutyric acid), a non-protein amino acid counters the β -adrenergic cascade-activated oncogenic signaling in pancreatic cancer: A review of experimental evidence. *Mol Nutr Food Res* 2011;55:1745-1758.

Al-Wadei MH, Al-Wadei HA, Schuller HM. Pancreatic cancer cells and normal pancreatic duct epithelial cells express an autocrine catecholamine loop that is activated by nicotinic acetylcholine receptors $\alpha 3$, $\alpha 5$, and $\alpha 7$. *Mol Cancer Res* 2012;10:239-249.

Ariyaratne HBS, **Mendis-Handagama SMLC.** Thyroid hormone and anti-Mullerian hormone (AMH) on Leydig cell differentiation: Studies using C57BL/6 mice and AMH over expressing mice. *Histol Histopathol* 2012;27: 365-376.

Bailey MR. Science editing and its effect on manuscript acceptance time. *Am Med Writers Assoc J* 2011;26:147-152.

Busingye D, Pedigo A, **Odoi A.** Temporal changes in geographic disparities in access to emergency heart attack and stroke care: Are we any better today? *Spat Spatio-temporal Epidemiol* 2011;2:247-263.

Cursiefen C, Colin J, Dana R, Diaz-Llopis

M, Faraj LA, Garcia-Delpech S, Geerling G, Price FW, Remeijer L, **Rouse BT**, et al. 2010 Consensus statement on indications for anti-angiogenic therapy in the management of corneal diseases associated with neovascularization: An expert roundtable outcome. *Br J Ophthalmol* 2012;96:3-9.

Huang E-C, Chen G, **Baek SJ, McEntee MF, Collier JJ, Minkin S, Biggerstaff J, Whelan J.** Zylflamend reduces the expression of androgen receptor in a model of castrate-resistant prostate cancer. *Nutr Cancer* 2011;63:1287-1296.

Ingram DR, **Miller DL**, Ingram TR, Tannehill JE. Intersex condition of shoal bass in the Flint River, Georgia. *J Aquat Anim Health* 2011;23:189-194.

Miller D, Gray M, Storfer A. Ecopathology of Ranaviruses infecting amphibians [invited review]. *Viruses* 2011;3:2351-2373.

Miller DL, Woshner V, Styer EL, **Ferguson S**, et al. Histologic findings in free-ranging Sarasota Bay bottlenose dolphin (*Tursiops truncatus*) skin: Mercury, selenium, and seasonal factors. *J Wildl Dis* 2011;47:1012-1018.

Nualsanit T, Rojanapanthu P, Gritsanapan W, Kwankitpraniti T, **Min KW, Baek SJ.** Damnacanthal-induced anti-inflammation is associated with inhibition of NF- κ B activity. *Inflamm Allergy Drug Targets* 2011;10:455-463.

Perrault JR, **Miller DL, Eads E**, et al. 2012 Maternal health status correlates with nest success of leatherback sea turtles (*Dermochelys coriacea*) from Florida. *PLoS ONE* 7(2):e31841.

Rathore K, Choudhary S, Odoi A, Wang H-CR. Green tea catechin intervention of reactive oxygen species-mediated ERK pathway activation and chronically induced breast cell carcinogenesis. *Carcinogenesis* 2012;33:174-183.

Rathore K, Wang H-CR. Green tea catechin extract in intervention of chronic breast cell

carcinogenesis induced by environmental carcinogens. *Mol Carcinogenesis* 2012;51:280-289.

Reddy PB, Sehrawat S, Suryawanshi A, **Rajasagi NK, Mulik S**, Hirashima M, **Rouse BT.** Influence of Gal-9/Tim-3 interaction on Herpes Simples Virus-1 latency. *J Immunol* 2011;187:5745-5755.

Schuller HM, Al-Wadei HA, Ullah MF, Plummer HK. Regulation of pancreatic cancer by neuropsychological stress responses: A novel target for intervention. *Carcinogenesis*. 2012;33:191-196.

Sehrawat S, **Rouse BT.** Tregs and infections: On the potential value of modifying their function. *J Leukoc Biol* 2011;90:1-9.

Sharma S, Sundararajan A, Suryawanshi A, **Mulik S**, Kumar N, Thomas PG, Kuchroo VK, Sangster MY, **Rouse BT.** T cell immunoglobulin and mucin protein-3 (Tim-3)/Galectin-9 interaction regulates influenza A virus-specific humoral and CD8 T-cell responses. *Proc Natl Acad Sci USA* 2011;108:19001-19006.

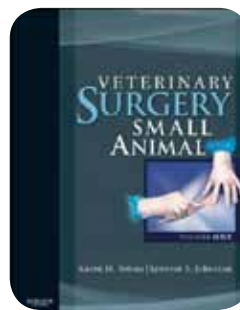
Tobias K, Johnston S, eds. *Veterinary Surgery: Small Animal*. Vol. 1 & 2. St. Louis: Elsevier; 2012.

Veiga-Parga T, Suryawanshi A, **Rouse BT.** Controlling viral immunoinflammatory lesions by modulating aryl hydrocarbon receptor signaling. *PLoS Pathogens* 2011:e1002427.

Videla R, van Amstel S, O'Neill SH, **Frank LA, Newman SJ**, Vilela R, Mendoza L. *Med Mycol* 2012;50:219-224.

Wang X, **Baek SJ**, Eling TE. COX inhibitors directly alter gene expression: Role in cancer prevention? *Cancer Metastasis Rev* 2011;30:641-657.

Yarbrough J, Harvey R, Cox S. Determination of propofol using high performance liquid chromatography in whole blood with fluorescence detection. *J Chromatogr Sci* 2012;50:162-166. ☺



Research Resource Spotlight



Crews & Jankovsky Win Research Awards at ACVP

Statistical Resources to Improve Study Outcomes

The UTCVM is lucky in that we have several statistical experts on hand for statistical consulting on research projects. Ann Reed, Xiaocun Sun, and Dr. Bart Rohrbach, “semi-retired” UTCVM professor, are available for appointments to set up study designs and for help to analyze the results. Dr. Agricola Odoi (Biomed Diag Sci) and Dr. Arnold Saxton (Anim Sci) are also well-versed in statistics.

In a pinch, though, faculty may find the following two resources useful.

1) *Easy Interpretation of Biostatistics: The Vital Link to Applying*

Evidence in Medical Decisions by Gail F. Dawson (Elsevier 2008). This 181-page book explains key concepts for practical application. It includes need-to-know information about samples, variables, power, probability, distribution, and bias.

2) Statistics Calculators (<http://danielsoper.com/statcalc3/default.aspx>). This free, online resource allows the user to perform common statistical tests like ANOVA, and determine probability, sample size, and statistical power. Optional resources are listed in each available category.

Thanks to Dr. Marcy Souza and Dr. Seung Baek for their recommendations. ☺

Two UTCVMers brought home awards from the American College of Veterinary Pathologists meeting in December.

Dr. **Amanda Crews** and DVM student **Jennie Jankovsky** were honored for their research on skin mineralization in naked mole rats, and COX-2 and c-kit expression in canine gliomas, respectively. Dr. **Shelley Newman** mentors both winners.

Crews was given the American Association of Veterinary Laboratory Diagnosticians travel award, and Jankovsky received first place for the Veterinary Student Poster, Clinical Research section. ☺

CEM Student Martin Recognized for Imaging Research

Emily Martin, PhD student in Comparative and Experimental Medicine, was a finalist in the poster session walk-through at the 2011 World Molecular Imaging Congress in San Diego, CA. As a finalist, she gave a brief presentation about the research to judges and well-known experts in the field.

Martin's mentor, Dr. Jonathan Wall from the UT Graduate School of Medicine, was also an author on the poster, entitled “Stable and rapid binding of 124I-labeled peptid p5 to visceral amyloid in vivo as evidenced by dynamic PET imaging.” Full details are available in the “Presentations” section of this newsletter. ☺

Submitting a Grant? Negotiating a Contract?

As always, **all** grants and contracts **MUST** go through the Office of Research (Tammy Berry) for approval. UT and UTCVM policy prohibits individuals from submitting such proposals/agreements on their own. These documents actually represent agreements between the university and the external entity, which cannot be made by individual faculty or staff members.

Grant applications **MUST** be received by the Office of Research for review at least 5 days before the due date, according to previously-published requirements posted at <http://www.vet.utk.edu/grants>. ☺

UTCVM Investigators Bring in \$730,699 for Recent Sponsored Projects

Title	PI	Agency	Start	Type	\$ Amount
Treatment of female canine urinary incontinence	J Bartges	Uroplasty	7/15/11	Yr 2/3	10,481
Detection of EGFR and HER2 expression in equine ocular squamous cell carcinomas	K Newkirk	Morris Animal Foundation	1/1/12	1/1	3,056
Mechanisms in herpetic keratitis	B Rouse	NIH	1/1/12	5/5	301,871
T-Regulatory cells in HSV immunity and immunopathology	B Rouse	NIH	2/1/12	1/4	355,690
Evaluation of a terbinafine-impregnated, subcutaneous implant for the treatment of <i>Geomyces destructans</i> -infected bats	M Souza	Barbour (Bernice) Foundation	1/1/12	1/2	25,000
Terrestrial mammal health	M Souza	TVA	8/1/11	5/5	11,001
Effectiveness of small interfering RNA (siRNA) to inhibit feline coronavirus replication	R Wilkes	Winn Feline Foundation	1/1/12	1/2	23,600

Recent Presentations

Cekanova M, Fernando R, Wimalasena J. The BCL2 antagonist of death, BAD is down-regulated in breast cancer and inhibits cancer cell invasion. Poster presented at: 34th Annual San Antonio Breast Cancer Symposium; December 2011; San Antonio, TX.

Chen S, Sanderson M, **Lanzas C**. Modeling temporal patterns of *Escherichia coli* O157 fecal shedding in cattle. Poster presented at: Epidemics3, 3rd International Conference on Infectious Disease Dynamics; December 2011; Boston, MA.

Craig LE, Reed A. Cartilage lesions of the canine humeral head. Presented at: 62nd Annual Meeting of the American College of Veterinary Pathologists; December 2011; Nashville, TN.

Crews AJ, **Newman SJ**, **Ramsay E**. Skin mineralization in naked mole rats. Poster and oral presentation at: American College of Veterinary Pathologists Meeting; December 2011; Nashville, TN.

Dhar M. Stem cells, cloning and regenerative medicine. Invited presentation at: Preprofessional Science Forum, South College; December 2011; Knoxville, TN.

Gruen M, **New JC Jr.**, Ruch-Gallie R, Antognoli MC, **Jennings T**, Boden M, Salman M, Zawistowski SL, Slater MR, Dunning D. Development and implementation of a Shelter Population Index (SPI) to evaluate population trends of cats and dogs in the United States. Presented at: Conference of Research Workers in Animal Disease Annual Meeting; December 2011; Chicago, IL.

Jankovsky J, **Newkirk K**, Ilha M, **Newman SJ**. COX-2 and c-kit

expression in canine gliomas. Poster presented at: American College of Veterinary Pathologists Meeting; December 2011; Nashville, TN.

Lanzas C. *Clostridium difficile* transmission dynamics and control at the hospital. Invited presentation at: International Workshop on Antibiotic-resistant Infections: Mathematical Modeling, Transmission Dynamics and Control; December 2011; Miami, FL.

Lanzas C. Modeling antimicrobial resistance in animal populations. Invited keynote presentation at: 2011 Meeting of the Dutch Society for Veterinary Epidemiology and Economics; November 2011; Utrecht, Netherlands.

Lanzas C, Dubberke ER, Gröhn YT. Modeling the effects of screening and applying contact precautions for asymptomatic *Clostridium difficile* carriers in health-care settings. Poster presented at: Epidemics3, 3rd International Conference on Infectious Disease Dynamics; December 2011; Boston, MA.

Lee LE, Nguyen ATN, Lenhart SM, Robl N, Bugman AM, **New JC Jr.**, **Lammers B**, **Jennings TL**, Weimer H. Modeling feral cat population dynamics in Knox County, TN. Presented at: Conference of Research Workers in Animal Disease Annual Meeting; December 2011; Chicago, IL.

Miller DL. Amphibian diseases and pathology. Presented at: Exotics Symposium; January 2012; Knoxville, TN.

Miller DL, Gerhold R. Wildlife necropsy. Workshop presented at: Exotics Symposium; January 2012; Knoxville, TN.

Newkirk K, McLean N. Brucella-associated phacoclastic uveitis and endophthalmitis in a dog. Ocular Pathology Mystery Slides. Presented at: American College of Veterinary Pathologists Annual Conference; December 2011; Nashville, TN.

Rouse BT. On the good and bad side of host galectins in viral infections. Invited seminar at: Scripps Research Institute; February 2012; La Jolla, CA; at Emory University; January 2012; Atlanta, GA; and at University of California Irvine; February 2012; Irvine, CA.

Tobias KM, **van Amstel S**. Modified perineal urethrostomy in the goat: a case series. Presented at: American College of Veterinary Surgeons Annual Symposium; November 2011; Chicago, IL.

Volkova VV, **Lanzas C**, Lu Z, Gröhn YT. Effect of bactericidal antimicrobial treatment on dissemination of plasmid-mediated antimicrobial resistance in enteric commensal bacteria of the host. Poster presented at: Epidemics3, 3rd International Conference on Infectious Disease Dynamics; December 2011; Boston, MA.

Wall J, **Martin EB**, Richey TA, Stuckey A, Osborne D, Kennel SJ. Stable and rapid binding of 124I-labeled peptide p5 to visceral amyloid in vivo as evidenced by dynamic PET imaging. Poster and oral presentation at: 2011 World Molecular Imaging Congress; September 2011; San Diego, CA. ☺