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Summer 2011

Discovery Summer 2011

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THE UNIVERSITY of TENNESSEE
INSTITUTE of AGRICULTURE
COLLEGE of VETERINARY MEDICINE

Knowledge DISCOVERY Compassion

Al-Wadei, Sharma, Ullah, Bryan, Voulgaris Take Research Symposium Awards

Two members of Dr. **Hildegard Schuller**'s laboratory and one from Dr. **Barry Rouse**'s laboratory took home travel awards from the 2011 Comparative & Experimental Medicine and Public Health (CEMPH) Research Symposium. **Mohammed Al-Wadei**, PhD graduate student, and Dr. **Mohammad Ullah**, post-doctoral research associate, earned 1st place and excellence awards, respectively, for their oral presentations. **Shalini Sharma** took the Gamma Sigma Delta award of excellence. Additionally, two residents from the Small Animal Clinical Sciences Department earned awards. Dr. **Jacqueline Bryan** and Dr. **Debra Voulgaris** earned cash and travel awards, respectively. For a full list of all UTCVM presentations, see the program linked below.

Twenty-two different departments were represented, and over 80 presentations were given at the CEMPH Symposium, which was held June 20 and 21 in the Veterinary Medicine Building. Even some of the overflow seating was used for Dr. Franziska Grieder's Monday morning talk, "One Health, One Medicine: Veterinary Research Scientists for the 21st Century." Dr. Grieder invoked her experience as the Director of the Division of Comparative Medicine at the National Center for Research Resources (NIH) to discuss translational research, the role of veterinarians in science and global health, and resources available through NIH, and in particular, NIH.

Those who attended Dr. William Bass's after-dinner talk at Tuesday evening's awards banquet learned about forensic anthropology and the role pets can play in a "crime" scene.

A complete list of award winners, as well as the full program and schedule, are available online at *http://www.vet.utk.edu/research/symposium/.* Paper copies of the program, which includes the abstracts of all presentations, are available as well (contact Misty Bailey if you would like one).

Photos: Landon Mathers © University of Tennessee

L-R: Dr. Franziska Grieder, Dr. Debra Voulgaris, Dr. Mohammad Fahad Ullah, Shalini Sharma, Dr. William Bass.

Fenwick Named Jefferson Science Fellow

Dr. **Brad Fenwick**, professor in the Department of Biomedical and Diagnostic Sciences, has been named one of 13 Jefferson Science Fellows chosen for 2011.

In this role, he will serve the U.S. Department of State as a science advisor in Washington, DC. Fenwick plans to use this opportunity to work toward promoting international research cooperation with UT scientists. His appointment begins in August, and his specific assignment will be determined in the next few weeks.

Fenwick is the first UT faculty member and the first veterinarian to receive the honor since the fellowships' inception in 2003. The program brings together a group of experienced researchers to strengthen the science and technology capabilities of the Department of State. After their 1-year term, researchers return to their academic appointment but remain available for special projects for the next 5 years.

Fellowships are awarded on the basis of scientific achievements, articulation, communication skills, and the applicants' interest in science policy issues.

Accolades for Hurst's 2nd Exp Biol Travel Award

Sarah Hurst, PhD graduate student in the Comparative and Experimental Medicine program, attended the Experimental Biology 2011 meeting in Washington, DC, this past April. Sarah was awarded the graduate student travel award to attend the program, where she presented her research at a special poster session hosted by the American Society for Biochemistry and Molecular Biology (ASBMB) and at the EB2011 poster session.

This marks the second time Hurst was awarded a travel award to attend and present at the Experimental Biology meeting. In April 2009, she attended in New Orleans, LA. In addition, Hurst has won a travel award from the International Mammalian Genome Society. Her mentor is Dr. **Madhu Dhar**, pictured at right in blue with Hurst. Full reference information may be found in the Presentations section of this newsletter. ꕥ

Blackford Takes Continuing Educator of the Year Award

At this year's Western Veterinary Conference (WVC), Dr. **Jim Blackford** of the Department of Large Animal Clinical Sciences, was selected by conference attendees as the Equine Continuing Educator of the Year. According to the WVC, he exemplifies "the talent and commitment that ensure the continuing education experience at the Western Veterinary Conference remains one of the finest in the world."

Blackford presented on equine wound management. His award will be featured in the 2012 conference program. ꕥ

Recent Publications

Close D, Hahn RE, Patterson S, **Baek SJ,** et al. Comparison of human optimized bacterial luciferase, firefly luciferase, and green florescent protein for continuous imaging of cell cultures and mouse models. *J Biomed Opt* 2011;16:047003.

Dickomeit MJ, Böttcher P, **Hecht S,** Liebich HG, Maierl J. Topographic and age-dependent distribution of subchondral bone density in the canine elbow joint. *Am J Vet Res* 2011;72:491–499.

Fecteau KA, Eiler H, Oliver JW. Effect of combined lignan phytoestrogen and melatonin treatment on secretion of steroid hormones by adrenal carcinoma cells. *Am J Vet Res* 2011;72:675–680.

Flatland B, Fry MM, Baek SJ, Bahn JH, **LeBlanc CJ,** Dunlap JR, Carroll RC, Kosiba DJ, Millsaps DJ, **Schleis SE.** May-Hegglin anomaly in a dog. *Vet Clin Pathol* 2011;40:204–214.

Fry MM, Snyder KR, Tobias KM, Williamson BG, Reed GA. Protein C activity in dogs: Adaptation of a commercial human colorimetric assay and evaluation of effects of storage time and temperature. *Vet Med Int* 2011:751849.

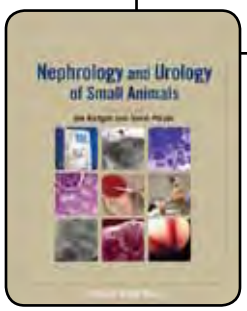
Haislip NA, Gray MJ, Hoverman JT, **Miller DL.** Development and disease: How susceptibility to an emerging pathogen changes through anuran development. *PLoS One* 2011;6: e22307.

Hecht S, Adams WH, Smith JR, **Thomas WB.** Clinical and imaging findings in intracranial blastomycosis (*Blastomyces dermatiditis*) in dogs: 5 cases. *J Am Anim Hosp Assoc* 2011;47:241–249.

Hecht S, Baron ML. The pancreas. In: Barr F, Gaschen L, eds. *BSAVA Manual of Canine and Feline Ultrasonography.* Gloucester: British Small Animal Veterinary Association; 2011:140–146.

Hecht S, Henry GA. Ultrasound of the urinary tract. In: **Bartges J**, Polzin DJ, eds. *Nephrology and Urology of Small Animals.* Ames, IA: Wiley-Blackwell;2011:128–145.

Hecht S. Nephropyelocentesis and antegrade pyelography. In: **Bartges J**, Polzin DJ, eds. *Nephrology and Urology of Small Animals.* Ames, IA: Wiley-Blackwell;2011: 43–45.



Hockert KJ, Martincic K, **Mendis-Handagama SMLC**, et al. Spermatogenetic but not immunological defects in mice lacking the τCstF-64 polyadenylation protein. *J Reprod Immunol* 2011;89:26–37.

Hueffer K, Lieske CL, McGilvary LM, Hare RF, **Miller DL**, O'Hara TM. *Streptococcus phocae* isolated from a spotted seal (*Phoca largha*) with pyometra in Alaska. *J Zoo Wildl Med* 2011;42:108–112.

Klosterman ES, Moore GE, de Brito Galvao JF, DiBartola SP, Groman RP, **Whittemore JC**, et al. Comparison of signalment, clinicopathologic findings, histologic diagnosis, and prognosis in dogs with glomerular disease with or without nephrotic syndrome. *J Vet Intern Med* 2011;25:206–14.

Krisanapun C, **Lee SH,** Peungvicha P, Temsiririrkkul R, **Baek SJ.** Antidiabetic properties involved in insulin sensitivity of *Abutilon indicum* Sweet are mediated by enhancement of adipocyte differentiation and activation of GLUT1 promoter. *Evid Based Complement Alternat Med* 2011:167684.

Lanzas C, Dubberke ER, Lu Z, Reske KA, Grohn YT. Epidemiological model for *Clostridium difficile* transmission in healthcare settings. *Infect Control Hosp Epidemiol* 2011;32:553–561.

Love L, Egger CM, Rohrbach BW, Cox SK, Doherty TJ. The effect of ketamine on the MACBAR of sevoflurane in dogs. *Vet Anaesth Analg* 2011;38:292–300.

Lyons JA, Dickson PI, **Wall JS**, Passage MB, Ellinwood NM, Kakkis ED, **McEntee MF**. Arterial pathology in canine mucopolysaccharidosis-I and response to therapy. *Lab Invest* 2011;91: 665–674.

Mott KR, Gate D, Zandian M, Allen SJ, **Rajasagi NK,** van Rooijen N, Chen S, Arditi M, **Rouse BT,** et al. Macrophage IL-12p70 signaling prevents HSV-1–induced CNS autoimmunity triggered by autoaggressive CD4+ Tregs. *Invest Ophthalmol Vis Sci* 2011;52:2321–2333.

Mulik S, Sharma S, Suryawanshi A, Veiga-Parga T, Reddy PBJ, Rajasagi NK, Rouse BT. Activation of endothelial roundabout receptor 4 reduces the severity of virus-induced keratitis. *J Immunol* 2011;186:7195-7204.

Neilson-Carley SC, Robertson JE, **Newman SJ,** et al. Specificity of a canine pancreas-specific lipase assay for diagnosing pancreatitis in dogs without clinical or histologic evidence of the disease. *Am J Vet Res* 2011;72:302–307.

Newkirk K, Frank LA. Multiple follicular cysts in 4 alpacas (*Vicugna pacos*). *Vet Dermatol* 2011;22:275–278.

Newkirk KM, Newman SJ, White LA, Rohrbach BW, Ramsay EC. Renal lesions of nondomestic felids. *Vet Pathol* 2011;48:698–705.

Perrault J, Wyneken J, Thompson LJ, Johnson C, **Miller DL.** Why are hatching and emergence success low? Mercury and selenium concentrations in nesting leatherback sea turtles (*Dermochelys coriacea*) and their young in Florida. *Mar Pollut Bull* 2011;62:1671–1682.

Rohrbach BW, Lutzy A, Patton S. Attributes, knowledge, beliefs, and behaviors relating to prevention of heartworm in dogs among members of a national hunting dog club. *Vet Parasitol* 2011;176:324–332.

Rohrbach BW, Odoi A, Patton S. Risk factors associated with failure of heartworm prophylaxis among members of a national hunting dog club. *J Am Vet Med Assoc* 2011;238:1150–1158.

Publications, cont. on p. 3

Miller Co-organizer for First International Symposium on Ranaviruses

The First International Symposium on Ranaviruses recently wrapped up in Minneapolis, MN. **Dr. Debra Miller**, associate professor in the departments of Biomedical and Diagnostic Sciences, and Forestry, Wildlife, and Fisheries, helped organize the symposium, along with Drs. Matthew Gray, Jesse Brunner, Jason Hoverman, and Andrew Storfer.

Held as part of the Joint Meeting of Ichthyologists and Herpetologists, the symposium brought together 24 speakers from eight countries to learn and share information about the impact of this pathogen on ectothermic vertebrates, with hopes to develop new research collaborations and identify strategies aimed at reducing or preventing the emergence of ranaviruses.

Artwork by: Dr. Jeanne Jones, Mississippi State University

Grad Student Panel Includes CEM's Gouffon

Julia Gouffon, PhD student in the Comparative and Experimental Medicine graduate program, was recently selected to participate in the Program for Excellence & Equity in Research (PEER) Spring Symposium graduate student panel. During the panel, entitled "Successfully Navigating Graduate Life," Gouffon and other panelists discussed ways to survive and thrive graduate programs in science, technology, engineering, and math.

The program also included talks by professionals in various disciplines and from various employers. These session leaders discussed resumes, funding, and collaborating. Gouffon is mentored by Dr. Michael Zemel and is also the director of the UT Affymetrix Core Facility.

CEM Program Grad & UTCVM Post-Doc Wins Prestigious National Egyptian Award

Dr. Mohamed Abd-Eldaim, formerly a post-doctoral research associate in the Virology Laboratory, has won the Egyptian State Incentive Award for young scientists for 2011. His current research is a continuation of what he began here at UTCVM.

Abd-Eldaim was one of only 32 such incentive awardees within Egypt, and one of only eight in his category of Agricultural Sciences. The honor comes with an approximately $8,500 cash award. Winners are selected by the executive boards of the Egyptian Academy of Science and the Supreme Council for Culture. Abd-Eldaim is a member of the Faculty of Veterinary Medicine at Suez Canal University in Ismailia, Egypt.

While at UTCVM, he was involved in several different projects. Abd-Eldaim published not only his PhD work (graduated fall 2000) on feline calicivirus with Dr. Leon Potgieter, but also with Dr. **Melissa Kennedy** on feline coronavirus, with Dr. Matt Allender on reptile and amphibian infectious disease, and with Dr. **Linden Craig** on Potomac horse fever.

Abd-Eldaim is seen below presenting at the 2009 Comparative & Experimental Medicine and Public Health Research Symposium.

Publications, cont. from p. 2

Rohrbach BW, Odoi A, Patton S. Survey of heartworm prevention practices among members of a national hunting dog club. *J Am Anim Hosp Assoc* 2011;47:161–169.

Sandfoss M, DePerno C, **Patton S**, et al. Prevalence of antibody to *Toxoplasma gondii* and *Trichinella* spp. in feral pigs (*Sus scrofa*) of Eastern North Carolina. *J Wildl Dis* 2011;47:338–343.

Seddighi R, Egger CM, Rohrbach BW, Cox SK, Doherty TJ. The effect of midazolam on the end-tidal concentration of isoflurane necessary to prevent movement in dogs. Vet Anaesth Analg 2011;38:195–202.

Sharma S, Mulik S, Kumar N, **Suryawanshi A, Rouse BT.** An anti-inflammatory role of VEGFR2/Src kinase inhibitor in herpes simplex virus 1-induced immunopathology. *J Virol* 2011;85:5995–6007.

Souza MJ, et al. Static and dynamic ^{18}FDG-PET in normal Hispaniolan Amazon parrots. *Vet Radiol Ultrasound* 2011;52:340–344.

Suryawanshi A, Mulik S, Sharma S, Reddy PB, Sehrawat S, **Rouse BT.** Ocular neovascularization caused by herpes simplex virus type 1 infection results from breakdown of binding between vascular endothelial growth factor A and its soluble receptor. *J Immunol* 2011;186:3653–3665.

Tóth F, Schumacher J, Schramme M, **Hecht S.** Evaluation of four techniques for injecting the trochanteric bursa of horses. *Vet Surg* 2011;40:489–493.

Videla R, Sommardahl CS, Elliott SB, et al. Effects of intravenously administered esomeprazole sodium on gastric juice pH in adult female horses. *J Vet Int Med* 2011;25:558–562.

Weisent J. One health: Animal exposure, seasonality and campylobacteriosis risk. *EPI Update: Bull Epidemiol Public Health East Tenn* 2011;14 (1). Available at: http://library.constantcontact.com/download/get/file/1103080520531-138/Animal+Exposure+and+campylobacteriosis+risk_edited.pdf. Accessed July 18, 2011.

Whittemore JC, **Marcum BA, Mawby DI**, et al. Associations among albuminuria, C-reactive protein concentrations, survival predictor index scores, and survival in 78 critically ill dogs. J Vet Int Med 2011; 25:818–824.

Wüthrich M, Krajaejun T, Shearn-Bochsler V, **Bass C,** Filutowicz H, **Legendre AM**, Klein BS. Safety, tolerability, and immunogenicity of a recombinant, genetically engineered, live-attenuated vaccine against canine blastomycosis. *Clin Vaccine Immunol* 2011;18:783–789.

UTCVM-UTGSM Research Collaboration Focus of *Lab Invest* Cover

Drs. **Jeremiah Lyons** and **Michael McEntee**, of the Department of Biomedical and Diagnostic Sciences, along with Dr. **Jonathan Wall** of the UT Graduate School of Medicine, had their research highlighted on the the cover of the *Nature* journal *Laboratory Investigation.* The cover shows a high-resolution computed tomography (CT) scan of a plaque at the branch point of the abdominal aortic wall (denser yellow) from a dog with mucopolysaccharidosis-I. The progressive disease shares some similarities with atherosclerosis.

Full reference information for the article may be found in the Publications section of this newsletter. ꕥ

F1000Posters *Open Access*

Open-access Poster Repository Now Available

A fairly new open-access repository called F1000 Posters allows uploading and searching of posters from the leading biology and medicine conferences.

Developed by Faculty of 1000, the founders of open access, the repository includes posters from over 180 national and international meetings, with some of the top-performing posters receiving up to 1,200 views per month.

This free tool will often allow access to the latest developments presented at conferences several months or even years before they are published as articles.

Copyright for all submitted posters remain with the author(s). In addition, all posters are watermarked so users may not grab a screen image without providing the source.

Posters may also be included that have not been presented at a recognized conference (e.g. student poster days, etc.); for these, three to four reviewer names will be requested who can be invited to provide a "stamp of approval" for the poster.

Worried about the prior publication rule? The sponsors of the service have contacted 104 journal publishers and individual journals, and 65 of them have no problems with prior deposition into the repository; other journals consider individual cases. A list of these journals is included in the FAQ section of the Web site, and depositors are encouraged to check this list and contact any journal not included before depositing a poster.

The poster repository is accessible via ***http://posters.f1000.com***. ꕥ

Howell's Poster Selected for Podium Presentation

A poster on using competency assessment to increase student self-awareness in problem-based learning exercises presented by Dr. **Nancy Howell** was chosen for a podium presentation at the International Association of Medical Science Educators Annual meeting held in St. Petersburg, FL, in June. Howell's poster was one of only four given that honor.

The other author on the poster was Dr. **India Lane**. Full details may be found in the Presentations section of this newsletter. ꕥ

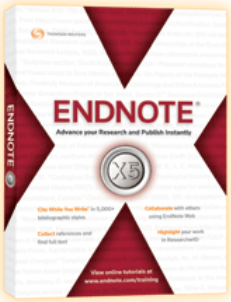
Patton's Collaborative Feral Pig Work Featured on *Science*Daily

Her collaborative work on feral pigs in Eastern North Carolina earned Dr. **Sharon Patton**, Department of Biomedical and Diagnostic Sciences, a feature on *Science*Daily's headline news. The April 30 article discusses Patton's involvement in examining the pigs to determine exposure to *Toxoplasma gondii* and *Trichinella*, both of which are considered zoonotic. She, along with researchers at North Carolina State University, published her research in the *Journal of Wildlife Diseases*. They found that the wild hogs were reservoirs for the two parasites. Full reference information for the article may be found in the Publications section of this newsletter.

*Science*Daily is an online, popular science news Web site with more than 3 million monthly visitors; the site generates nearly 15 million page views a month. ꕥ

Research Resource Spotlight

EndNote X5 Available Soon



The latest version of EndNote, EndNote X5, will soon be available through the UT Libraries and the Office of Information Technology (OIT). The upgrade was announced June 20 by Thomson Reuters, the parent company of EndNote.

EndNote is a reference management software that eases some of the tediousness of writing by assisting the author with insertion and formatting of internal citations and the reference list. EndNote software boasts over 5,000 journal styles from which to choose.

UT Libraries and OIT share the $20,000 per year license fee so that faculty, staff, and students will be able to download the new version for free. EndNote X5 will be made available soon. For all things EndNote, see the EndNote support page at *http://www.lib.utk.edu/refs/endnote/*.

Civility in Scientific Discourse

This spring, Chancellor Jimmy Cheek launched a campus-wide promotion of civility, defining its guiding principles as "inclusivity, diversity, dialogue, collegiality, respect, knowledge, integrity, learning, awareness, responsiveness."

Chancellor Cheek encourages everyone on campus to treat others as they would want to be treated. Yet, in an academic environment where debate and critique of ideas is critical, civility must often be combined with necessary, and sometimes heated, discourse.

Two recent editorials take on that delicate balance of constructive criticism and civility in the world of research, in particularly regarding peer review and reputation.

David G. Drubin, editor-in-chief of *Molecular Biology of the Cell*, makes these recommendations for civil and useful manuscript peer review: "Review a manuscript only if you can do so objectively" and in a timely manner. Recognize merits and efforts but be clear in identifying faults. "Be critical, but be constructive." Don't try to predict a manuscript's future impact. "Remember that it is not your paper"–if the writing is clear, don't change something just because that is not how you would say it.

Similar to Drubin's advice, Philip E. Bourne and Virginia Barbour, editors-in-chief of *PLoS Computational Biology* and *PLoS Medicine*, respectively, recently recommended 10 rules for building and maintaining a scientific reputation. Much of their advice is focused on civility. For example, they advise not to ignore criticism, but instead to give it thought and time before responding professionally. They also suggest not treating people in proportion to your perceived value of them and being cordial to requests from everyone. However, if you cannot complete a task, they say, do not commit to do it. As for reviewing manuscripts and grants and writing references, they say avoid writing poor reviews (see Drubin's previous advice), and don't write reference letters for those who don't deserve them.

To read the complete articles, see the citations below.

Bourne PE, Barbour V. Ten simple rules for building and maintaining a scientific reputation. *PLoS Computational Biology* 2011;7:e1002108.

Drubin DG. Any jackass can trash a manuscript, but it takes good scholarship to create one (how MBoC promotes civil and constructive peer review). *Mol Biol Cell* 2011;22:525–527.

UTCVM Investigators Bring in Nearly $2 Million for Sponsored Projects

Title	PI	Agency	Start	Type	$ Amount
Measurement of anti-staphylococcal antibodies in dogs with pyoderma and normal dogs	D Adrian	Morris Animal Foundation	6/1/11	Yr 1/1	4,000
Novel mechanism mediating LPA-induced smooth muscle cell and vascular responses	M-Z Cui	NIH	6/15/11	1/4	361,159
P-type ATPases, insulin signaling, protein trafficking	M Dhar	American Diabetes Association	1/1/11	2/2	47,500
Pharmacokinetics and clinical application of Resvantage Equine in horses	N Frank	Advantage Partners, Inc.	5/1/11	1/1	7,080
Neurology resident support	C Kirk	Carolina Veterinary Specialists	7/1/11	1/3	135,100
Prevention of colorectal cancer by tolfenamic acid: Mechanistic studies	S-H Lee	American Cancer Society	7/1/11	1/4	720,000
MRI Evaluation of the liver in normal dogs using the specific contrast agent Eovist0	A Marks	American College of Veterinary Research	4/9/11	1/1	6,774
The GABA-B receptor is a novel drug target for pancreatic cancer	H Schuller	NIH	5/1/11	3/4	264,476
Vulnerability assessment	S Thompson	Fresh Express	3/15/11	1/1	15,664
Role of presenilin-associated protein in apoptosis and Abeta formation	X Xu	NIH	4/15/11	1/2	179,580
The role of the new zeta cleavage in Abeta formation	X Xu	NIH	4/1/11	5/5	277,202

Recent Presentations

Baek SJ. Molecular targets of NSAIDs in colorectal tumorigenesis Invited presentation at: The Royal Golden Jubilee PhD Program, Mahidol University; March 2011; Bangkok, Thailand.

Bilheux H, Nichols T, Vass A, **Walker L,** Voisin S, Bilheux J, **Cekanova M, Legendre A, Donnell R, LeBlanc A.** Investigation of a novel approach to forensic analysis using neutron imaging techniques: Preliminary measurements. Presented at: National Institute of Justice Conference; June 2011; Washington, DC.

Cain CL, Morris DO, Rankin SC. Clinical characterization of *Staphylococcus schleiferi* infections in dogs and identification of risk factors for acquisition of oxacillin resistant strains. N Am Vet Dermatol Forum; April 2011; Galveston, TX.

Cekanova M, **Lucy K, Geiser D, Millis D, Legendre A**, **Whitlock D.** Hyperbaric oxygen treatment affects canine mesenchymal stem cells in vivo. Poster presentation at: 2nd N Am Vet Regen Med Conference; June 2011; Lexington, KY.

Cekanova M, Uddin JM, **Bartges J, Callens A, Legendre A,** Marnett L. Detection of COX-2 expressing canine bladder cancers using novel optical tracer, fluorocoxib. Poster presented at: Frontiers of Biomedical Imaging Science III; June 2011; Vanderbilt University, Institute of Imaging Science, Nashville, TN

Choudhary C, Rathore K, Sood S, Wang H-CR. Synergistic induction of Mek1/2 and Nox-1 by histone deacetylase inhibitors leads to differential induction of reactive oxygen species for mediating selective apoptosis of oncogenic H-Ras-expressing cells. Poster presented at: Annual Am Assoc Cancer Res meeting; April 2011; Washington, DC. Abstract 1681.

Cox S, Dudenbostel L, **Sommardahl C, Yarbrough J,** Saleh M, **Doherty T.** Pharmacokinetics of firocoxib and its interaction with enrofloxacin in horses. Presented at: Am Coll Vet Int Med Forum; June 2011; Denver, CO.

Cox S, Wilson J, Doherty T. Pharmacokinetics and metabolism of lidocaine after intravenous administration to cows. Presented at: Am Academy Vet Pharmacol Ther 17th Biennial Symposium; May 2011; Madison, WI.

Conius C, **Whittemore JC,** et al. Association between feline antibody responses to alpha-enolase and azotemia in privately-owned cats. Poster presentation at: 12th Annual Coll Vet Med Biomed Sci Res Day; March 2011; Colorado State Univ., Fort Collins, CO.

Egger C. Anesthetic complications and emergencies; analgesic strategies; local and regional analgesic techniques for private practice; anesthesia for patients with cardiac disease; anesthesia for the acute abdomen patient. Oral presentations at: Florida Vet Med Assoc Ann Conf; April 2011; Orlando, FL.

Frank L. Alopecia – Is it hormonal?; Alopecia X; Sex hormone analysis in dogs and cats. Invited presentations at the: Annual meeting of the Australian Dermatology Chapter/Science Week, Gold Coast; July 2011; Gold Coast, Australia.

Hecht S. CT in neuroimaging. Oral presentation at: Computed Tomography Course; July 2011; Madison, WI.

Howell H, Lane I. Using competency assessment to increase student self-awareness in PBL exercises. Poster presented at: International Association of Medical Science Educators Annual Meeting; June 2011; St. Petersburg, FL.

Hurst SE, Minkin SC, Dunlap J, Biggerstaff J, **Dhar M.** Characterization of ATP10C and multiple signaling pathway proteins in C2C12 myotubes using immunofluorescence microscopy. Experimental Biology Meeting; April 2011; Washington, DC.

Hyink S, Whittemore JC, Mitchell A, Reed A. Sensitivity and specificity of tissue impedance determination for correct Veress needle placement in cadaverous cats. Oral presentation at: Am Coll Vet Int Med forum; June 2011; Denver, CO.

Lane I, Howell N. Incorporating professional development into basic science classrooms and laboratories. Workshop presented at: Int Assoc Med Sci Ed Annual Meeting; June 2011; St. Petersburg, FL.

Lane I, Howell N, Cherry S, Brace J. Twelve years of "thin-slice" problem based learning: Evolution of courses in a veterinary curriculum. Poster presented at: Int Assoc Med Sci Ed Annual Meeting; June 2011; St. Petersburg, FL.

Lankton J, Miller DL. Hot nests and sea turtles. Presented at: Southeastern Veterinary Pathology Conference; May 2011; Tifton, GA.

Lee SH, Bahn JH, **Whitlock N, Baek SJ.** Activating transcription factor 2 (ATF2) controls tolfenamic acid-induced ATF3 expression via MAP kinase pathways. Poster presented at: Am Assoc Cancer Res Annual Meeting; April 2011; Orlando, FL.

Lee SH, Richardson RL, Baek SJ. Capsaicin represses transcriptional activity of β-catenin in human colorectal cancer cells. Poster presented at: Am Assoc Cancer Res Annual Meeting; April 2011; Orlando, FL.

Legendre A. Preliminary findings of polyprenyl immunostimulant treatment of dry FIP. Oral presentation at: Winn Feline Foundation 33rd Annual Symposium on Feline Health; June 23, 2011; Reston, VA.

Mawby DI, Stone A, **Whittemore JC,** et al. Prevalence of *Bartonella* spp. DNA in blood of naturally-exposed cats with and without imidocloprid treatment. Poster presented at: Am Coll Vet Int Med Forum; June 2011; Denver, CO. ID-28.

Miller DL. Comparative pathology of ranaviral disease among amphibians, reptiles and fish. Invited presentation at: First International Symposium on Ranaviruses/Joint Meeting of Ichthyologists and Herpetologists; July 2011; Minneapolis, MN.

Newman SJ. Emphysematous cystitis in a dog. Presented at: Southeast Vet Pathol Conf; May 2011; Tifton, GA.

Rathore K, Wang H-CR. Green tea catechin suppression of carcinogenesis and cell proliferation induced by environmental carcinogens 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone and benzo[a]pyrene. Poster presented at: Annual Am Assoc Cancer Res meeting; April 2011; Washington, DC. Abstract 1331.

Rothermel BB, Travis ER, Hill RL, **Miller DL**. 2011. Stream salamander occupancy and pathogen prevalence in a protected watershed in the Southern Blue Ridge Mountains, USA. Poster presented at: Joint Meeting of Ichthyologists and Herpetologists; July 2011; Minneapolis, MN.

Sams V, Lawson C, **Coan P, Bemis D, Newkirk K**, et al. Effect of local anesthetic on microorganisms in a murineE model of surgical site infection. Presentation at: Graduate School of Medicine Research Day; May 25, 2011; Knoxville, TN.

Shen RF, Wu W, Hsiao CT, Patel S, Martin B, **Baek SJ.** Combined technical platforms facilitate the identification and quantification of biomarkers responding to an anti-diabetic compound. Poster presented at: 59th ASMS Conference on Mass Spectrometry and Allied Topics.; June 2011; Denver, CO.

Tadros L, Frank N. Inflammatory responses to intravenous lipopolysaccharide infusion in horses with equine metabolic syndrome. Presented at: Am Coll Vet Int Med Forum; June 2011; Denver, CO.

Tobias K. Surgery of the digestive tract; urethral surgery; portosystemic shunts; wound closure techniques; management of difficult wounds; managing wounds with resistant *Staph.* Oral presentations at: DC Academy of Veterinary Medicine; June 2011; Fairfax, VA.

Tobias K. Tension-relieving techniques; flaps and grafts; hard-to-manage wounds; methicillin-resistant *Staph* infections; tips and tricks for intestinal surgery; surgery of the large intestines; salivary mucoceles. Oral presentations at: Pacific Veterinary Conference; July 2011; Anaheim, CA.

Van Amstel S. Nutritional and environmental causes of laminitis in cattle. Guest speaker at: 3rd International Symposium of Veterinary Surgery and 9th Iranian Symposium of Veterinary Surgery, Anesthesia & Radiology; April 2011; Kish Island, Persian Gulf, Iran.

Wang H-CR. Inducing ROS-mediated selective apoptosis of oncogenic Ras-expressing cancer cells. Invited presentation at: Middle Tennessee State Univ.; March 2011; Murfreesboro, TN.

Whittemore JC, Newkirk KM, Reel DM, Reed A. Histologic evaluation of hepatic copper and iron accumulation in 104 feline liver biopsies. Oral presentation at: Am Coll Vet Intern Med Forum; June 2011; Denver, CO.

Wilkes RP, Newkirk KM, Adams JK, Ward DA. Evaluation of topical delivery methods for the introduction of siRNAs into feline corneal cells in vivo. Poster presented at: 2nd RNAi Res Ther Conf; July 2011; San Francisco, CA.

Yarbrough J, Cox S, Greenacre C. Determination of butorphanol using HPLC in plasma with fluorescence detection. Poster presented at: Pittsburgh Conf Analytical Chem Appl Spectroscopy; March 2011; Atlanta, GA.

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