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Fall 2011

Discovery Fall 2011

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Recommended Citation
Bailey, Misty, "Discovery Fall 2011" (2011). *Discovery Research Newsletter.*
http://trace.tennessee.edu/utk_discovery/19

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Vol. 6, Issue 3
Fall 2011

In this Issue

p1–Associate dean search, TERA/PAMS, Rouse honor; p2–Quertle database, publications; p3– JANE journal selector, Reilly abstract award, externally-funded awards; p4–presentations

THE UNIVERSITY of TENNESSEE
INSTITUTE of AGRICULTURE
COLLEGE of VETERINARY MEDICINE

Knowledge DISCOVERY Compassion

Search for Assoc Dean for Research & Grad Studies Underway

The search to replace Dr. **Michael McEntee** as interim Associate Dean for Research and Graduate Studies is underway, with an application deadline of November 15. The position, outlined below, has been advertised on the university recruitment page, as well as SciJobs (an online search engine associated with the journal *Science*) and HigherEd Jobs.

Applicants are desired to have a PhD, DVM, MD, or similar professional degree and must also have maintained a federally-funded (NIH, USDA, or comparable) biomedical research program, preferably in an academic institution, with at least one transferable federal grant as PI at the level of an NIH R01 or equivalent. Applicants should also have evidence of successful primary mentorship of graduate students awarded PhD degrees, membership on at least one prominent scientific journal editorial board, service on federal grant review committees, organizational leadership, and knowledge of pre- and post-award processes relating to funded research, including research compliance.

The position is a full-time, tenure-track appointment at the professor level with expectations that the incumbent will maintain an active, federally-funded research program, will work to develop and administer a federal training grant(s) for graduate students, and will increase the breadth and depth of basic, translational, and clinical science within the college.

The search committee expects interviews to begin sometime after the new year, with an optimistic goal of having someone in place by the end of the summer. The committee comprises Drs. **Stephen Kania** (chair), William Brown, **Amy LeBlanc, Seung Baek,** Naima Moustaid-Moussa, and **David Brian.** ☙

TERA/PAMS Electronic Proposal Submission System Now Online

In September, the new TERA/PAMS proposal submission system went live. For all subsequent grant submissions, investigators should use this electronic system in place of the paper "Permission to Apply for External Funding" form.

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. Users should be careful to **avoid erroneously using the UT Knoxville TERA site, which will route the proposal to the incorrect location and require users to re-enter all information**.

Tutorials may be found at ***http://taes.utk.edu/upload/AgRsch/SponsoredPrograms/TERA/Training/***, and these include short videos in addition to the recorded full PI training session, in case you missed it. ☙

Rouse *J Immunol* Article Featured "In This Issue"– Top 10%

The August 15 (Vol. 187, No. 4) issue of the *Journal of Immunology* featured Dr. **Barry Rouse**'s article "Role of IL-17 and Th17 cells in herpes simplex virus-induced corneal immunopathology" in its "In This Issue" feature. "In This Issue" highlights the top 10% of articles in each issue.

Other authors on the paper were current and former members of Rouse's lab: **Amol Suryawanshi**, **Tamara Veiga-Parga**, Naveen K. Rajasagi, Pradeep Babu Jagdeesh Reddy, Sharvan Sehrawat, and **Shalini Sharma.** The study indicates IL-17 as a potential therapeutic target for the treatment of herpes simplex virus-induced ocular stromal keratitis. ☙

Quertle Promises Smarter, Easier Way to Search Biomedical Literature

The National Library of Medicine (NLM), a division of the National Institutes of Health, recently awarded *Quertle* with first place for the NLM's Software Challenge on Innovative Uses of NLM Information.

Quertle is a fairly new, free search engine geared toward biomedical literature. It uses semantics to produce a relationship-driven search. For example, when searching for conditions affected by caffeine, a traditional search engine like PubMed or Google would require the user to enter multiple search terms like "caffeine AND migraine," "caffeine AND asthma," and so on. *Quertle*, however, allows users to specify "Power Terms" to search an array of diseases simply by entering "caffeine $Diseases."

Capitalization may be used to narrow results like "NO" for "nitrous oxide" instead of "no," which indicates a negative. *Quertle* searches PubMed, full-text articles, grant applications, TOXLINE, white papers, and biomedical news simultaneously. Users may save their searches and set up alerts. The results may be refined, sorted, and exported just like with any other database.

Because *Quertle* has existed for only 2 years, it still has its negative attributes, such as containing advertisements in the middle of search results and being unable to recognize Boolean operators like "AND" and "OR." However, other filtering mechanisms may render those operators unnecessary. In addition, it is still not considered optimal for searching for alternatives to animal use.

For more information on using *Quertle*, or to try it out yourself, visit ***http://quertle.info/***. ☙

Recent Publications

Cui M-Z. Lysophosphatidic acid effects on atherosclerosis and thrombosis. *Clin Lipidol* 2011;6:413–426.

Evans EE. Zoonotic diseases of common pet birds: Psittacine, passerine, and columbiform species. *Vet Clin North Am Exotic Anim Pract* 2011;14:457–476.

Frank LA. Alopecia, non-inflammatory –dogs. In: Tilley LP, Smith FWK, eds. *Blackwell's Five-Minute Veterinary Consult: Canine and Feline.* 5th ed. Chichester, UK:Wiley-Blackwell;2011: 58–59.

Green AL, Carpenter R, **Dunn JR.** Rabies epidemiology, risk assessment, and pre- and post exposure vaccination. *Vet Clin North Am Exotic Anim Pract* 2011;14:507–518.

Hernandez S, **Schumacher J**, Lewis S, **Odoi A**, Divers S. Selected cardiopulmonary values and baroreceptor reflex in conscious green iguanas (*Iguana iguana*). *Am J Vet Res* 2011;72:1519–1526

Hecht S, Adams WH, Narak J, Thomas WB. Magnetic resonance imaging susceptibility artifacts due to metallic foreign bodies. *Vet Radiol Ultrasound* 2011;52:409–14.

Hecht S. Brain. In: Schwarz T, Saunders J, eds. *Veterinary Computed Tomography.* Ames, IA:Wiley-Blackwell;2011:185–196.

Hecht S, Schwarz T. Pituitary gland. In: Schwarz T, Saunders J, eds. *Veterinary Computed Tomography.* Ames, IA:Wiley-Blackwell;2011:197–204.

Hill WA, Brown JP. Zoonoses of rabbits and rodents. *Vet Clin North Am Exotic Anim Pract* 2011;14:519–532.

Hughes KL, **Hecht S**, Allender MC. What is your diagnosis? – Carapace fracture with spine involvement in a box turtle. *J Am Vet Med Assoc* 2011;239:573–574.

Margraves CH, Kihm KD, Yoon SY, Choi CK, Lee SH, **Liggett JL, Baek SJ.** Simultaneous measurements of cytoplasmic viscosity and intracellular vesicle sizes for live human brain cancer cells. *Biotechnol Bioeng* 2011;108:2504–2508.

McCain SL, Allender MC, **Schumacher J, Ramsay EC.** The effects of a probiotic on blood urea nitrogen and creatinine concentrations in large felids. *J Zoo Wildl Med* 2011;42:426–429

Miller DL, Gray MJ. Ranavirus infection in aquatic turtles [lay article]. *Year of the Turtle News* 2011;11:1,5,6.

Miller D, Perrault J, Wyneken J. Does mercury or maternal health impact leatherback sea turtle nest success? [lay article]. *Year of the Turtle News* 2011;11:7.

Morandi F. Adrenal glands. In: Schwartz T, Saunders J, eds. *Veterinary Computed Tomography.* Chichester, UK:Wiley-Blackwell; 2011: 351–355.

Morandi F. Calvarium and zygomatic arch. In: Schwartz T, Saunders J, eds. *Veterinary Computed Tomography.* Chichester, UK:Wiley-Blackwell; 2011: 161–170

Newkirk KM, Hendrix DV, Keller RL. Porphyrins are not present in feline ocular tissues or corneal sequestra. *Vet Ophthalmol* 2011;14(Suppl 1):2–4.

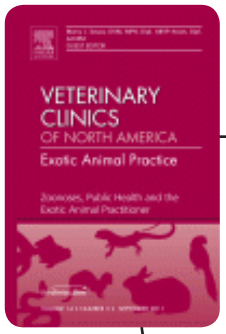
Pedigo A, Aldrich T, **Odoi A.** Neighborhood disparities in stroke and myocardial infarction mortality: A GIS and spatial scan statistics approach. *BMC Public Health* 2011;11:644.

Pedigo A, Seaver W, Odoi A. Identifying unique neighborhood characteristics to guide health planning for stroke and heart attack: Fuzzy cluster and discriminant analyses approaches. *PLoS One* 2011;6(7): e22693.

Ramsay EC. Zoonoses of procyonids and nondomestic felids. *Vet Clin North Am Exotic Anim Pract* 2011;14:551–556.

Rossi F, **Morandi F**, Schwartz T. Liver, gall bladder and spleen. In: Schwartz T, Saunders J, eds. *Veterinary Computed Tomography.* Chichester, UK: Wiley-Blackwell;2011: 297–314

Suryawanshi A, **Veiga-Parga T,** Rajasagi NK, Reddy PBJ, Sehrawat S, **Sharma S, Rouse BT**. Role of IL-17 and Th17 cells in herpes simplex virus-induced corneal immunopathology. *J Immunol* 2011;187:1919–1930.



Schaefferkoetter J, Carlson ER, **LeBlanc AK.** PET/CT. In: Subburaj K, ed. *CT Scanning–Techniques and Applications.* Rijeka, Croatia:InTech;2011:53–68.

Souza MJ. One health: Zoonoses in the exotic animal practice. *Vet Clin North Am Exotic Anim Pract* 2011;14:421–426.

Souza MJ, guest ed. *Vet Clin North Am Exotic Anim Pract* 2011;14.

Wang H-CR, Choudhary S. Reactive oxygen species-mediated therapeutic control of bladder cancer. *Nature Rev Urol* 2011;8:608–616.

Weisent J, Rohrbach B, Dunn JR, Odoi A. Detection of high risk campylobacteriosis clusters at three geographic levels. *Geospatial Health* 2011;6:65–76. ☙

Research Resource Spotlight

'Jane' Eases Task of Selecting a Journal for Your Manuscript

The Journal/Author Name Estimator (Jane) identifies potential journals to which to submit manuscripts based on the manuscript's title or abstract. Jane allows authors to enter either of these items and then populates a list of potential journals based on those included in MedLine.

Jane searches for the 50 articles that are most similar to your input. For each of these articles, Jane calculates a similarity score between that article and your input. The similarity scores of all articles belonging to a certain journal are summed to calculate the confidence score for each journal. The results are then ranked by confidence score.

Also calculated with the results is Article Influence (AI), which measures how often articles in the journal are cited within the first 5 years after publication. These citations are weighted based on the influence of the journals from which citations are received: being cited in an article in *Science* can boost a journal's AI more than being cited in an obscure journal.

The information sent to the Jane server is not stored but is kept in memory only as long as needed to calculate the scores and formulate the response page. The server itself is reportedly protected using standard protection measures. However, for extra-sensitive material, Jane administrators offer the option to "scramble" your input (button below the input box). Scrambling simply entails putting all the words in alphabetical order via your browser (i.e. no information is sent for the scrambling). Although putting the words in alphabetical order does not completely disguise input, it does make it extremely hard to read yet has no effect on Jane's performance.

The free, online tool also allows users to search for authors of similar papers and for articles with similar content.

To try Jane, visit ***www.biosemantics.org/jane/index.php.***

Reilly Earns Abstract Award

Dr. **Sabrina Reilly**, senior anesthesiology resident in the Small Animal Clinical Sciences Department received an honorable mention for the 2011 Smiths Medical/SurgiVet Resident Research Abstract Awards.

She was one of two residents to receive the distinction at this year's annual meeting of the American College of Veterinary Anesthesiologists held in conjunction with the International Veterinary Emergency and Critical Care Society's annual meeting.

Her abstract was titled "Fentanyl decreases sevoflurane minimum alveolar concentration preventing motor movement (MACNM) in dogs without evidence of acute tolerance."

UTCVM Investigators Bring in over $2.1 Million for Recent Sponsored Projects

Title	PI	Agency	Start	Type	$ Amount
Coronavirus RNA replication	D Brian	NIH	6/1/11	Yr 4/5	348,671
Detection of Cox-2 expressing canine tumors by new optical imaging tracer, Fluorocoxib	M Cekanova	Vanderbilt University	11/1/11	1/2	22,500
Equioxx (firocoxib) oral paste loading dose	S Cox	Merial	5/13/11	1/1	30,324
Plasma cortisol concentrations in dogs with pituitary dependent hyperadrenocorticism and atypical Cushing's syndrome	L Frank	AKC Canine Health Foundation	11/1/11	1/1	11,632
Evaluation of Erbb2/Her-2/neu expression in canine and feline tumors	J Phillips; S Newman	Merial	5/17/11	1/2	39,592
Mechanisms in herpetic keratitis	B Rouse	NIH	1/1/11	4/5	20,963
The GABA-B receptor is a novel drug target for pancreatic cancer	H Schuller	NIH	5/1/11	2/2	19,086
GABA-BR-mediated prevention of pancreatic cancer	H Schuller	NIH	9/1/11	3/5	280,800
Evaluation of a terbinafine-impregnated subcutaneous implant for the treatment of *Geomyces destructans*-infected bats	M Souza	National Speleological Society	9/1/11	1/1	11,214
Supporting the development & delivery of the National Food Safety Curriculum	S Thompson	U.S. Food & Drug Administration	9/21/11	1/5	1,299,955
Provide food vulnerability assessment training course	S Thompson	Confidential	9/7/11	1/1	13,256
The role of the new zeta cleavage in ABeta formation	X Xu	NIH	4/1/11	5/5	17,649

Recent Presentations

Baek SJ. Alternative splicing of Kruppel-like factor 4 plays a role in colorectal tumorigenesis. Invited presentation at: International Conference & Exhibition on Cancer Science & Therapy; Aug. 2011; Las Vegas, NV.

Fischer KM, Ward DA, Hendrix DVH. The effect of topical 2% delta-9-tetrahydrocannabinol suspension on acqueous humor flow rate and intraocular pressure in normal dogs. Presented at: American College of Veterinary Ophthalmologists (ACVO) Annual Meeting; Oct. 2011; Hilton Head, SC.

Goodman RM, Ararso YT, **Miller DL.** Presence of ranavirus and the fungus *Batrachochytrium dendrobatidis* in reptiles and amphibians sharing three water bodies in Virginia. Presented at: 96th Ecological Society of America Annual Meeting; Aug. 2011; Austin, TX.

Greenacre CB, Cox S, Yarborough J, **Tipton A**. Pharmacokinetics of morphine, tramadol, meloxicam, and butorphanol in bearded dragons. Presented at: Association of Reptile and Amphibian Veterinarians Conference; Aug. 2011; Seattle, WA.

Greenacre CB, Jaques JT. TSH testing in birds using canine, bovine, or human TSH. Presented at: Association of Avian Veterinarians Conference (AAVC); Aug. 2011; Seattle, WA.

Greenacre CB. Methimazole use in hyperthyroid Guinea pigs. Presented at: Association of Exotic Mammal Veterinarians Conference; Aug. 2011; Seattle, WA.

Hendrix DVH, Bentley E, **Rohrbach BW.** Correlation of aspects of residency training with first-time pass rate on the board examination of the ACVO. Presented at: ACVO Annual Meeting; Oct. 2011; Hilton Head, SC.

Jones MP, Morandi F, Wall J, Long M, Stuckey A, **LeBlanc A.** Normal coelomic distribution of 2-deoxy-2-[18F] fluoro-D-glucose (18FDG) in normal adult bald eagles (*Haliaeetus leucocephalus*). Presented at: AAVC; Aug. 2011; Seattle, WA.

Kennel SJ, Richey T, Stuckey A, Huang Y, Akula M, Kabalka G, **Martin E,** Heidel E, Tigyi G, **LeBlanc AK**, Wall JS. Manual quantitation of B16F10 pulmonary tumor colonies in mice correlates with 18FLT uptake. Poster presented at: 2011 World Molecular Imaging Congress (WMIC); Sept. 2011; San Diego, CA.

Kennedy M. Presentations on viral pathogens, viral enteritis, vaccinations, feline infectious peritonitis, and viral diagnostics. At: CVC Central Conference; Aug. 2011; Kansas City, KS.

LeBlanc AK, Akula M, **Martin EB, Rowe JA, Galyon GD, Moyers TD,** Stuckey AC, Long MJ, Wall JS, Kennel SJ, Kabalka GW. Whole-body biodistribution of 3'-deoxy-3'-[18F] fluorothymidine (18FLT) in normal adult cats. Poster presented at: 2011 WMIC; Sept. 2011; San Diego, CA.

LeBlanc AK, Akula M, **Martin EB, Rowe JA, Galyon GD, Moyers TD,** Stuckey AC, Long MJ, Wall JS, Kennel SJ, Kabalka GW, **Besozzi MC.** Whole-body biodistribution of 14(R,S)-[18F] fluoro-6-thia-heptadecanoic acid with positron emission tomography/computed tomography (PET/CT) in domestic cats. Poster presented at: 2011 WMIC; Sept. 2011; San Diego, CA.

Manley R, Matthews AR, Morandi F, Henry GA, Conklin G, Haifley K. Magnetic resonance imaging of the canine cranial abdomen: Quantitative and qualitative evaluation of various imaging sequences. Presented at: American College of Veterinary Radiology (ACVR) Annual Scientific Conference; Oct. 2011; Albuquerque, NM.

Mankin JM, Hecht S, Thomas WB. Agreement between T2 and HASTE (half-fourier-acquisition single-shot turbo spin-echo) sequences in the evaluation of intervertebral disc disease in dogs. Poster presented at: ACVR Annual Scientific Meeting; Oct. 2011; Albuquerque, NM.

Martin E, Wall JS, **Morandi F,** Long MJ, **Seddighi R, Doherty TJ**, Kojima C, **LeBlanc AK.** Volumetric quantitation of regional adiposity in miniature swine using segmented CT data. Poster presented at: 2011 WMIC; Sept. 2011; San Diego, CA.

Miller DL, Gray MJ. Herpetofauna necropsy. Presented at: Annual Conference of the Southeastern Association of Fish and Wildlife Agencies; Oct. 2011; Nashville, TN.

Miller DL, Wyneken J, Mader DR. Sea turtle hatchling deaths associated with elevated beach temperatures. Presented at: 18th Annual Conference of The Wildlife Society; Nov. 2011; Waikoloa, HI.

Morandi F, Jones MP, Wall JS, Long MJ, Stuckey AC, **LeBlanc AK.** Distribution of 18FDG in the coeloma of normal bald eagles. Presented at: ACVR Annual Scientific Conference; Oct. 2011; Albuquerque, NM.

Newkirk KM, Hendrix DVH, Anis EA, Kania SA. Detection of papillomavirus in equine periocular squamous cell carcinoma. Presented at: ACVO Annual Meeting; Oct. 2011; Hilton Head, SC.

Newman SJ. Amoebiasis in a snake. Oral presentation at: Midwest Association of Veterinary Pathologists meeting; Aug. 2011; Zion, IL.

Pokorny E, Hecht S, Sura PA, LeBlanc AK, Phillips J. Magnetic resonance imaging in canine mast cell tumors. Poster presented at: ACVR Annual Scientific Meeting; Oct. 2011; Albuquerque, NM.

Rouse B. Immunity or immunopathology to viruses–Role of galectins. Invited presentation at: Center for Immunology, University of Minnesota Medical School; Nov. 2011; Minneapolis, MN.

Rouse B. On the immunomodulatory role of host galectins in viral infections. Invited presentation at: Department of Medicine, University of California San Diego; Oct. 2011; San Diego, CA.

Rouse B. Virus infections–Factors that affect their outcome. Neuro-oncology Program, University of Minnesota; Nov. 2011; Minneapolis, MN.

Rouse B. Invited oral presentation at: Harnessing Immunity to Prevent and Treat Disease Conference; Nov. 2011; Cold Spring Harbor, NY.

Souza MJ, Gerhardt L, Cox S. Pharmacokinetics of multiple dose oral tramadol in Hispaniolan Amazon parrots. Presented at: Association of Avian Veterinarians Annual Conference & Expo; Aug. 2011; Seattle, WA.

Souza MJ, Gray M, Colclough P, **Lammers B, Miller D.** Infectious disease surveillance of hellbenders (*Cryptobranchus alleganiensis*) in eastern Tennessee. Presented at: Annual Conference of the Association of Reptile and Amphibian Veterinarians; Aug. 2011; Seattle, WA.

Tobias KM. Soft tissue surgery: Liver and biliary surgery, challenging wounds, prostatic disease, updates in soft tissue surgery. Oral presentations at: Airport Emergency Clinic Continuing Education Program; Oct. 2011; Johnson City, TN.

Tobias KM. Soft tissue surgery: Flaps and grafts; tension-relieving techniques; challenging wounds; methicillin-resistant *Staph*.; updates in soft tissue surgery; peritonitis. Oral presentations at: Ralph Lee's Great Smokies Veterinary Conference; Oct. 2011; Asheville, NC.

Wall JS, **LeBlanc AK**, Richey T, Stuckey A, Akula M, Kabalka G, **Martin E,** Macy S, Kennel SJ. In vitro and in vivo reactivity of heparin-binding peptides with human and murine tumors. Presented at: 2011 WMIC; Sept. 2011; San Diego, CA.

Wang H-CR. Chronic cell carcinogenesis model. Invited presentation at: Xinjiang Academy of Animal Science, Institute of Veterinary Medicine; Aug. 2011; Urumqi, Xinjiang Province, China.

Wang H-CR. Globalization of veterinary education and veterinary medicine. Invited presentation at: China Animal Disease Control Center, Ministry of Agriculture; Aug. 2011; Beijing, China.

Wang H-CR. Intervention of chronic cell carcinogenesis. Invited keynote presentation at: The 17th Annual Conference of Chinese Veterinary Pathology, Pathology Association of Chinese Animal Science and Veterinary Medicine; August 8–10; Yanglin City, China.

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PA# E181703-00-001-10