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CCMTR and Wake Forest University to Focus on Regenerative Medicine

The CCMTR's Stem Cells and Regenerative Medicine research core and the Institute for Regenerative Medicine at Wake Forest's Baptist Medical Center are pooling resources in order to find safe and effective ways to use cells to regenerate damaged organs in people and pets.

This partnership and the resulting joint research projects will not only benefit companion animals right away, but will also help bring these therapies to human patients more quickly. The collaboration acknowledges the "need for and benefits of increased cooperation and communication" in research endeavors that support the technology of employing cells to regenerate organs. Basic research at the CCMTR and clinical cases at the College of Veterinary Medicine's Randall B. Terry, Jr. Companion Animal Veterinary Medical Center are involved in the agreement.

The official collaboration will include the exchange of students and faculty, exchange of academic information, development of collaborative research, as well as joint publication of medical and scientific research papers.

Research Core Working Group Ideas Due January 23

All eight research cores met recently and are forming working groups to focus on short- and long-term projects. In some cases Center members may partner with researchers outside the Center and NC State to achieve their goal. The research core leaders will present the ideas at the January 23, 2012 CCMTR Executive Committee meeting.

One Health IEG Returns to Weekly Schedule

This spring graduate, veterinary and medical students at Duke, UNC, and NC State will participate for credit in the weekly parallel course "One Health: From Philosophy to Practice." Sessions will begin January 10 at the NC Biotechnology Center. Anyone interested in public health is welcome to attend. The sessions will include modules on the following topics: Introduction to One Health; Environmental Health/Ecology; The Human and Companion Animal Bond: The Tie that Binds; Zoonoses and Emerging Infectious Diseases; Food/Water Safety; Disease Surveillance, Informatics, Disaster Preparedness; Benefits of Comparative Medicine: Regenerative Medicine?; and One Health in the Bigger Picture: Policy, Education, Conclusions.

CMTRTP Applications Due January 15

Applications for the Comparative Medicine and Translational Research Training Program are due January 15, 2012, and will be reviewed by February 15, 2012. This three-year program provides post-graduate research opportunities for veterinary specialists in well-funded laboratories that will lead to a doctoral degree (PhD). The training program emphasizes translational research and provides experience in multidisciplinary research programs. For program details: <http://www.cvm.ncsu.edu/cmtr/cmtrtp.html>.

CMTRTP Trainee Receives Award

Dr. Arnaud Van Wettere won the first place Young Investigator Award in Experimental Disease at the 2011 annual meeting of the American College of Veterinary Pathologists in Nashville, TN for his poster

presentation "Activation of the TGF-beta Pathway in a DMN-induced Fish Model of Hepatic Fibrosis."
Congratulations, Dr. Van Wettere!

Events Calendar

To see upcoming events: <http://www.cvm.ncsu.edu/ccmtr/cal.html>. If you'd like to add an event to the calendar, send an email to liz_selisker@ncsu.edu.

Designate the CCMTR in PINS!

Designation of the CCMTR in PINS is an important means for us to track the impact of the Center. If your proposal meets any of the following criteria, please select the CCMTR on the pull-down menu for 'Center': 1) the proposal is the result of a collaboration initiated through CCMTR activities, 2) CCMTR funding or a CCMTR service core was used to generate preliminary data, 3) the proposal will utilize a CCMTR service core, or 4) a CCMTR-supported trainee will be involved in the research. If you have any questions, please contact Liz Selisker.

CCMTR Promotion Encouraged

Increasing external recognition of the Center remains essential. Faculty members are reminded to acknowledge the Center in posters, presentations, publications, abstracts and grants. Please use the links below to download a power point presentation containing a set of templates with the CCMTR logos. For Mac users: <http://dl.dropbox.com/u/45804432/CCMTRtemplates2011%20copy%202.key>
For PC users: <http://dl.dropbox.com/u/45804432/CCMTRtemplates2011%20copy%202.pptx>

New Articles Highlight Comparative and Translational Research by CCMTR Members

Authors: Salzmann, CA; Olivry, TJM; Nielsen, DM; Paps, JS; Harris, TL; Olby, NJ
Title: Genome-wide linkage study of atopic dermatitis in West Highland White Terriers
Source: BMC GENETICS 12: Art. No. 37 APR 21 2011

Authors: Thomas, R; Seiser, EL; Motsinger-Reif, A; Borst, L; Valli, VE; Kelley, K; Suter, SE; Argyle, D; Burgess, K; Bell, J; Lindblad-Toh, K; Modiano, JF; Breen, M
Title: Refining tumor-associated aneuploidy through 'genomic recoding' of recurrent DNA copy number aberrations in 150 canine non-Hodgkin lymphomas
Source: LEUKEMIA & LYMPHOMA 52 (7): 1321-1335 JUL 2011

Authors: Jacquet, BV; Muthusamy, N; Sommerville, LJ; Xiao, GX; Liang, HX; Zhang, Y; Holtzman, MJ; Ghashghaei, HT
Title: Specification of a Foxj1-Dependent Lineage in the Forebrain Is Required for Embryonic-to-Postnatal Transition of Neurogenesis in the Olfactory Bulb
Source: JOURNAL OF NEUROSCIENCE 31 (25): 9368-9382 JUN 22 2011

Authors: Baumer, W; Stahl, J; Sander, K; Petersen, LJ; Paps, J; Stark, H; Kietzmann, M; Olivry, T
Title: Lack of preventing effect of systemically and topically administered histamine H-1 or H-4 receptor antagonists in a dog model of acute atopic dermatitis
Source: EXPERIMENTAL DERMATOLOGY 20 (7): 577-581 JUL 2011

Authors: Hedan, B; Thomas, R; Motsinger-Reif, A; Abadie, J; Andre, C; Cullen, J; Breen, M
Title: Molecular cytogenetic characterization of canine histiocytic sarcoma: A spontaneous model for human histiocytic cancer identifies deletion of tumor suppressor genes and highlights influence of genetic background on tumor behavior
Source: BMC CANCER 11: Art. No. 201 MAY 26 2011

Authors: Iyori, K; Futagawa-Saito, K; Hisatsune, J; Yamamoto, M; Sekiguchi, M; Ide, K; Son, WG; Olivry, T; Sugai, M; Fukuyasu, T; Iwasaki, T; Nishifuji, K

Title: Staphylococcus pseudintermedius exfoliative toxin EXI selectively digests canine desmoglein 1 and causes subcorneal clefts in canine epidermis
Source: VETERINARY DERMATOLOGY 22 (4): 319-326 10.1111/j.1365-3164.2011.00952.x AUG 2011

Authors: Li JJ, Birkenheuer AJ, Marr HS, Levy MG, Yoder JA, Nordone SK
Title: Expression and function of triggering receptor expressed on myeloid cells-1 (TREM-1) on canine neutrophils
Source: DEVELOPMENTAL & COMPARATIVE IMMUNOLOGY 35 (8): 872-880
10.1016/j.dci.2011.03.021 AUG 2011

Authors: Perez, C; Maggi, RG; Diniz, PPVP; Breitschwerdt, EB
Title: Molecular and Serological Diagnosis of Bartonella Infection in 61 Dogs from the United States
Source: JOURNAL OF VETERINARY INTERNAL MEDICINE 25 (4): 805-810 10.1111/j.1939-1676.2011.0736.x JUL-AUG 2011

Authors: Piedrahita, J
Title: Large Animal Induce Pluripotent Stem Cells (iPS) Cells: A Much Needed Bridge to Clinical Applications
Source: IN VITRO CELLULAR & DEVELOPMENTAL BIOLOGY-ANIMAL 47 S8-S8 1 JUN 2011

Authors: Ott, LE; Mcdowell, ZT; Turner, PM; Law, JM; Adler, KB; Yoder, JA; Jones, SL
Title: Two Myristoylated Alanine-Rich C-Kinase Substrate (MARCKS) Paralogs are Required for Normal Development in Zebrafish
Source: ANATOMICAL RECORD-ADVANCES IN INTEGRATIVE ANATOMY AND EVOLUTIONARY BIOLOGY 294 (9): 1511-1524 10.1002/ar.21453 SEP 2011

Authors: Scott, MC; Sarver, AL; Gavin, KJ; Thayanithy, V; Getzy, DM; Newman, RA; Cutter, GR; Lindblad-Toh, K; Kisseberth, WC; Hunter, LE; Subramanian, S; Breen, M; Modiano, JF
Title: Molecular subtypes of osteosarcoma identified by reducing tumor heterogeneity through an interspecies comparative approach
Source: BONE 49 (3): 356-367 10.1016/j.bone.2011.05.008 SEP 2011

Authors: Piedrahita, JA
Title: The Role of Imprinted Genes in Fetal Growth Abnormalities
Source: BIRTH DEFECTS RESEARCH PART A-CLINICAL AND MOLECULAR TERATOLOGY 91 (8): 682-692 SI 10.1002/bdra.20795 AUG 2011

Authors: Breitschwerdt, EB; Mascarelli, PE; Schweickert, LA; Maggi, RG; Hegarty, BC; Bradley, JM; Woods, CW
Title: Hallucinations, Sensory Neuropathy, and Peripheral Visual Deficits in a Young Woman Infected with Bartonella koehlerae
Source: JOURNAL OF CLINICAL MICROBIOLOGY 49 (9): 3415-3417 10.1128/JCM.00833-11 SEP 2011

Authors: Hobi, S; Linek, M; Marignac, G; Olivry, T; Beco, L; Nett, C; Fontaine, J; Roosje, P; Bergvall, K; Belova, S; Koebrich, S; Pin, D; Kovalik, M; Meury, S; Wilhelm, S; Favrot, C
Title: Clinical characteristics and causes of pruritus in cats: a multicentre study on feline hypersensitivity-associated dermatoses
Source: VETERINARY DERMATOLOGY 22 (5): 406-413 10.1111/j.1365-3164.2011.00962.x OCT 2011

Authors: Oberkirchner, U; Linder, KE; Dunston, S; Bizikova, P; Olivry, T
Title: Metaflumizone-amitraz (Promeris)-associated pustular acantholytic dermatitis in 22 dogs: evidence suggests contact drug-triggered pemphigus foliaceus
Source: VETERINARY DERMATOLOGY 22 (5): 436-448 10.1111/j.1365-3164.2011.00974.x OCT 2011

Authors: Kajikawa, A; Nordone, SK; Zhang, L; Stoeker, LL; LaVoy, AS; Klaenhammer, TR; Dean, GA
Title: Dissimilar Properties of Two Recombinant *Lactobacillus acidophilus* Strains Displaying Salmonella
FliC with Different Anchoring Motifs
Source: APPLIED AND ENVIRONMENTAL MICROBIOLOGY 77 (18): 6587-6596
10.1128/AEM.05153-11 SEP 2011

Authors: Angstadt, AY; Motsinger-Reif, A; Thomas, R; Kisseberth, WC; Couto, CG; Duval, DL; Nielsen,
DM; Modiano, JF; Breen, M
Title: Characterization of Canine Osteosarcoma by Array Comparative Genomic Hybridization and RT-
qPCR: Signatures of Genomic Imbalance in Canine Osteosarcoma Parallel the Human Counterpart
Source: GENES CHROMOSOMES & CANCER 50 (11): 859-874 10.1002/gcc.20908 NOV 2011

Authors: Uhl, E; Krimer, P; Schliekelman, P; Tompkins, SM; Suter, S
Title: Identification of Altered MicroRNA Expression in Canine Lymphoid Cell Lines and Cases of B- and
T-Cell Lymphomas
Source: GENES CHROMOSOMES & CANCER 50 (11): 950-967 10.1002/gcc.20917 NOV 2011

Authors: Alfoldi, J; Di Palma, F; Grabherr, M; Williams, C; Kong, LS; Mauceli, E; Russell, P; Lowe, CB;
Glor, RE; Jaffe, JD; Ray, DA; Boissinot, S; Shedlock, AM; Botka, C; Castoe, TA; Colbourne, JK; Fujita,
MK; Moreno, RG; ten Hallers, BF; Haussler, D; Heger, A; Heiman, D; Janes, DE; Johnson, J; de Jong, PJ;
Koriabine, MY; Lara, M; Novick, PA; Organ, CL; Peach, SE; Poe, S; Pollock, DD; de Queiroz, K; Sanger,
T; Searle, S; Smith, JD; Smith, Z; Swofford, R; Turner-Maier, J; Wade, J; Young, S; Zadissa, A; Edwards,
SV; Glenn, TC; Schneider, CJ; Losos, JB; Lander, ES; Breen, M; Ponting, CP; Lindblad-Toh, K
Title: The genome of the green anole lizard and a comparative analysis with birds and mammals
Source: NATURE 477 (7366): 587-591 10.1038/nature10390 SEP 29 2011

Authors: Richards, KL; Motsinger-Reif, A; Nielsen, DM; Thomas, R; Smith, C; Dave, SS; Breen, M; Suter,
SE
Title: Characterizing canine lymphoma as a potential large animal model of human diffuse large B-cell
lymphoma
Source: INTERNATIONAL JOURNAL OF MOLECULAR MEDICINE 28 S68-S68 1 2011

Authors: Wendelsdorf, K; Dean, G; Hu, SH; Nordone, S; Banks, HT
Title: Host immune responses that promote initial HIV spread
Source: JOURNAL OF THEORETICAL BIOLOGY 289 17-35 10.1016/j.jtbi.2011.08.012 NOV 21 2011

Authors: Cherry, NA; Maggi, RG; Rossmeisl, JH; Hegarty, BC; Breitschwerdt, EB
Title: Ecological Diversity of Bartonella Species Infection Among Dogs and Their Owner in Virginia
Source: VECTOR-BORNE AND ZOONOTIC DISEASES 11 (11): 1425-1432 10.1089/vbz.2010.0201
NOV 2011

Authors: Stoeker, L; Nordone, S; Gunderson, S; Zhang, L; Kajikawa, A; LaVoy, A; Miller, M;
Klaenhammer, TR; Dean, GA
Title: Assessment of *Lactobacillus gasseri* as a Candidate Oral Vaccine Vector
Source: CLINICAL AND VACCINE IMMUNOLOGY 18 (11): 1834-1844 10.1128/CVI.05277-11 NOV
2011

Authors: Mascarelli, PE; Iredell, JR; Maggi, RG; Weinberg, G; Breitschwerdt, EB
Title: Bartonella Species Bacteremia in Two Patients with Epithelioid Hemangioendothelioma
Source: JOURNAL OF CLINICAL MICROBIOLOGY 49 (11): 4006-4012 10.1128/JCM.05527-11 NOV
2011

