Morris Animal Foundation Awards to Cancer Investigators

**Clinical Trial of AR42 (Histone deacetylase inhibitor) in Canine Mast Cell Tumors and Lymphoma**

Histone deacetylase inhibitors (HDACIs) are a new class of antitumor drugs being developed for cancer treatment that have been found to inhibit growth of several types of tumors in humans and mice. *Drs. Bill Kisseberth and Cheryl London* will investigate an OSU derived drug called AR42, developed for human cancer patients at the Ohio State James Cancer Hospital. This novel HDACI has significant antitumor activity *in vitro* against a variety of canine tumor cell lines and in *ex vivo* treated primary malignant canine mast cells. The study will determine the dose of the drug that is safe and well-tolerated in a clinical trial. The results of this work will provide support for further development of AR-42 for dogs with cancer.

**MicroRNA Analysis in Feline Cancer**

Understanding the genetic basis of cancer is crucial for improving cancer diagnosis, treatment, and prevention for both humans and animals. *Drs. Tom Rosol, Wessel Dirksen*, and Carlo Croce have teamed together to test microRNAs (miRNAs) in feline cancer. MicroRNAs are small non-protein coding RNAs implicated in humans as having a major role in gene regulation and cancer, as well as in a variety of other diseases. The purpose of this study is to use state-of-the-art bioinformatic approaches to identify miRNAs in the feline genome and characterize the expression of miRNAs in normal and neoplastic feline cell lines. Our goal is to identify specific miRNAs as therapeutic targets or prognostic markers in feline cancer. This study will generate new tools for future miRNA investigation on feline species and provide an overview of miRNA expression profiles in selected normal and neoplastic feline tissues.
Dr. Garabed begins mapping Foot and Mouth Disease prevalence in Cameroon

Dr. Garabed and her team, funded by a grant from the National Science Foundation (NSF), are collecting herd demographic data and biological samples for isolation for foot-and-mouth disease (FMD) in the Far North of Cameroon. Data collection involves sampling of transit cattle on routes between Chad and Nigeria for prevalence of FMD. As part of the overall project, the team has negotiated agreements with the Higher Institute of the Sahel (ISS, part of the University of Maroua) and with the veterinary school at the University of Ngaoundere to provide tuition and stipend for students to conduct ecology of infectious diseases research within the larger project. Undergraduate and graduate will conduct independent research projects in ecology of infectious diseases research within the larger project. Undergraduate and graduate will conduct independent research projects in ecology of infectious diseases research within the larger project. These projects will be done over the year and students will present their findings along with students proposing new research topics in June 2012. Also in June-July 2011, two American veterinary students conducted their own research on ecology of diseases in Cameroon under the guidance of the PI team. These students will present their findings at the College of Veterinary Medicine's research week and also at national conferences. For more information: http://vet.osu.edu/preventive-medicine/decml

FOCUS ON SHARED RESOURCES – Microarray

The Microarray Shared Resource (MASR) provides customizable and comprehensive resources for high-throughput microarray and next-generation sequencing technologies. Microarray is a powerful, high throughput technology that can monitor thousands of gene mRNAs, miRNAs and sRNAs in a single experiment. The MASR offers custom microarray design and fabrication, commercial microarrays, next-generation sequencing (SOLiD 4, Applied Biosystems), and RNA/DNA quality analysis. Services include: Whole genome epigenetic analysis, mRNA, microRNA, non-coding sRNA and whole transcriptome analysis; RNA/DNA-seq; whole and targeted genome re-sequencing, SNP genotyping, genomic DNA gain/loss detection on HD aCGH arrays, microRNA genomic gain/loss on oligo aCGH array, RNA/DNA characterization, microarray processing and data analysis. For information: http://cancer.osu.edu/research/cancerresearch/sharedresources/pages/index.aspx

SUMMER RESEARCH PROGRAM – UPDATE

On July 13th, ~30 students took a tour of the Wilma H. Schiermeier Olentangy River Wetland Research Park, http://swamp.osu.edu/. On August 4th, 13 students along with Drs. Laimore and Oglesbee, and Michele Morscher attended the Merial NIH National Symposium hosted by the University of Florida at Walt Disney World. The students participated in poster presentations and attended seminars. Ohio State will be hosting this symposium in 2016!

COUNCIL FOR RESEARCH ACTIVITIES – UPDATE

The next Council for Research meeting has been set for August 11th to review and discuss the canine and equine grants submitted for funding. Award notices will be sent out shortly thereafter.
RECENT SELECTED PUBLICATIONS


Williams ML, Pearl DL, Lejeune JT. Multiple-locus variable-nucleotide tandem repeat subtype analysis implicates European starlings as biological vectors of Escherichia coli O157:H7 in Ohio, USA. J Appl Microbiol. 2011 Jul 18


SELECTED PUBLICATIONS, cont’d


RECENT GRANT AWARDS

Dr. Thomas Rosol: Morris Animal Foundation MicroRNA Analysis in Feline Cancer

Drs. Cheryl London and Bill Kisseberth: Animal Clinical Investigation Exploratory safety study of an intravenous infusion of C. novyi-NT for the treatment of melanoma, osteosarcoma, soft tissue sarcoma or squamous cell carcinoma in dogs: A multi-center study

Drs. Cheryl London and Bill Kisseberth: Morris Animal Foundation Phase I Pharmacokinetic and Pharmacodynamic Trial of AR42 in Dogs with Mast Cell Tumors and Lymphoma

Drs. Thomas Scharschmidt, Matthew Allen, and Joel Mayerson: Janssen Pharmaceutica NV Evaluation of the effectiveness of combining bortezomib (Velcade(TM)) with a local delivery mechanism (albumin and PMMA bone cement) for myeloma bone disease

July edition of the CCTS Investigator is now available http://ccts.osu.edu/content/ccts-investigator-july-2011

**SEMINARS, MEETINGS AND WORKSHOPS**

Workshop on Genomics and Proteomics of Oncogenic Retroviruses  August 11-13, 2011 Syria, VA  

XXV Symposium of the International Association for Comparative Research on Leukemia and Related Diseases  

18th Annual Midwest Microbial Pathogenesis Conference  
October 21-23, Ann Arbor MI  
[http://sites.google.com/site/mmpconf/](http://sites.google.com/site/mmpconf/)

**Upcoming training offered through the Office of Sponsored Programs**

Register at  [http://osp.osu.edu/training/](http://osp.osu.edu/training/)
- Proposal Development and Submission  8/11
- PI Portal Practice Lab  8/17
- IRB Process Workshop  8/25
- Cost Sharing on Sponsored Programs  8/25
- Cayuse 424 (Electronic Submission) Introduction 9/29

**GRANT SUPPORT OFFICE - UPDATE**

**Dr. Hayes-Ozello recently obtained her Certified Research Administrator credential.** The CRA is granted to individuals who have achieved a strong understanding of all aspects of grant submission and research administration as evident by passing a national examination. In addition, she was just elected co-chair for the OSU Administrative Research Council. The ARC is a network of research administrators representing all colleges and units at OSU. The ARC focuses on information exchange, education and training, grants policy and procedure development, process improvement, and other activities that support faculty research and scholarship.

**What You Should Know – New Fringe Benefit rates!**

Fringe benefit rates have been adjusted for FY2010. The Faculty rate has increased to 28% and staff rate has increased to 36.7%. Please see link for more information!

[http://rf.osu.edu/development/e-fringe.cfm#2011](http://rf.osu.edu/development/e-fringe.cfm#2011)
UPCOMING FUNDING OPPORTUNITIES

CTSA Collaborative Multitrack Pilot RFA – Veterinary Medicine Pilot Program (track 8)
Projects establishing the translational issues of animal science, in the context of benefiting human health, will be given priority. Research team must include at least one regular faculty member of the College of Veterinary Medicine as co-investigator. **One award is expected for $15,000 in direct costs for one year. Due October 2**

DHS National Center for Foreign Animal and Zoonotic Disease Defense – Open Call for Proposals
http://fazd.tamu.edu/2011/06/open-call-for-proposals/

Great Lakes Regional Centers of Excellence for Biodefense and Emerging Infectious Diseases Research Funding Opportunities: Research Projects: Due September 1, 2011

Burroughs Wellcome Fund: Pathogenesis of Infectious Diseases *limited submission opportunity* (3 applicants to be put forth from OSU) Internal letter of intent due (Sept. 12, 2011 (Sponsor due date Nov. 1, 2011) http://rf.osu.edu/fundops/detail.cfm?strFOID=2776

DOD FY11 Breast Cancer Research Impact Award, pre-application due Sept. 20, 2011
W81XWH-11-BCRP-IMPT

Pew Scholars Program in Biomedical Sciences *limited submission opportunity* (1 applicant from OSU) Internal letter of intent due Sept. 12, 2011 (Sponsor due date Nov. 1, 2011 by noon) http://rf.osu.edu/fundops/detail.cfm?strFOID=2774

Searle Scholars Program * limited submission opportunity* (1 applicant from OSU) Internal Letter of Intent due Aug. 8, 2011 (Sponsor due date Sept. 30, 2011) http://rf.osu.edu/fundops/detail.cfm?strFOID=2681

USDA Opportunity: Multicultural Scholars Program — NIFA announces the availability of grant funds to conduct undergraduate and D.V.M. scholarship programs FY 2011 MSP Program Areas of Emphasis — Veterinary Medicine (First Professional Degree in Veterinary Medicine i.e., D.V.M.) – specifically targeted is food animal veterinary medicine Due August 22, 2011

FDA Opportunity: Evaluation of Salmonella in Symptomatic & Asymptomatic Pets (U18) **Due August 15, 2011**

NIH Opportunities


NSF Opportunity: Division of Molecular and Cellular Biosciences: Investigator-Initiated Research Projects (MCB) - NSF 11-545 The Division of Molecular and Cellular Biosciences (MCB) supports fundamental research and related activities designed to promote understanding of complex living systems at the molecular, subcellular, and cellular levels. **Due Sept. 6, 2011** http://fundingopps.cos.com/alerts/129920

For more information please contact Dr. Kate Hayes-Ozello, College of Veterinary Medicine Grants Support Office at Kathleen.Hayes-Ozello@cvm.osu.edu (614) 292-8670 or Ms. Michele Morscher at Michele.Morscher@cvm.osu.edu