



# Research News

Autumn 2012

## NEWS HEADLINES

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## Clinical Trials Office is Expanding with support from the OSUCCC

At OSU, the veterinary oncology caseload has doubled over the past 5 years with approximately 4000-4500 cancer case visits per year to the VMC. The VMC attracts patients from throughout the region including Cincinnati, Cleveland, Pittsburgh, and West Virginia. The willingness of pet owners to travel such long distances to reach the VMC is driven by several factors including the recognized expertise of oncology faculty members, the presence of comprehensive care at a single site, access to state-of-the-art diagnostic and therapeutic options (e.g., PET/CT, interventional radiology), and the availability of clinical trials. With the addition of the CVM Clinical Trials Office and Biospecimen Repository as a developing Shared Resource within the Ohio State University Comprehensive Cancer Center (OSUCCC), OSU will be uniquely positioned to transform the process of cancer drug development and testing in a way that will truly impact the future of cancer care. Drs. Cheryl London and Bill Kisseberth are directors of the CVM Clinical Trials Office and Biospecimen Repository, respectively, and are nationally renowned veterinary oncologists.

The proposed expansion will include the addition of 1000 sq ft of additional laboratory space in the basement of the VMC to accommodate increased staffing, sample processing and specimen storage as well as development of canine cell lines and mouse tumor models. Patrick Green, PhD, Professor and Associate Dean of the CVM Office of Research and leader of the Viral Oncology Program at the OSUCCC believes this Shared Resource “will fully integrate the comparative and translational medicine efforts of the CTO/BR with those of Ohio State’s Medical Center, Comprehensive Cancer Center and Nationwide Children’s Hospital. This is likely to result in improved translational outcomes in both human and veterinary medicine through early evaluation of novel therapeutic approaches that can help guide the future use of such therapies to treat human and animal disease.”

## Building Bridges with Battelle: enhancing interactions and collaborations

On August 9, Dean Lonnie King led a delegation from the CVM including Dr. Pat Green (Professor and Associate Dean for Research and Graduate Studies), and Dr. Armando Hoet (Assistant Professor and Director of the Veterinary Public Health Program), Dr. Bill Saville (Professor and Chair, VPM), Dr. Rebecca Garabed (Assistant Professor VPM) and Dr. Tom Wittum (Professor VPM) to Battelle Memorial Research Institute West Jefferson Facility.

Dr. Green described the robust research programs in infectious diseases, food safety, oncology, and animal models that could serve as areas of collaboration and exchange with researchers at Battelle. There was interest and discussion about partnership between CVM investigators and Battelle investigators teaming up to apply for federal grants.

Dr. Hoet presented the Veterinary Public Health Program. He then presented a vision in which Battelle personnel would teach in the VPH and graduate curriculum and CVM graduate students would perform capstone projects at Battelle. This initial meeting has set the wheels in motion for a valuable and important partnership between the College and Battelle on multiple levels.



### Latest edition of ARCNotes

<https://carmenwiki.osu.edu/display/10040/ARC+Notes++September+2012>

Really useful information including:  
*Research Developments and Grant writing News* and all about the NIH "Like This" search tool for PIs

## COMMERCIALIZATION OFFICE – Material Transfer Agreements

Material Transfer Agreements (MTAs) define legal rights for parties exchanging tangible materials for research purposes (cell lines, plasmids, proteins, transgenic animals, chemical compounds, and samples are examples of exchanged materials). The OSU Technology Transfer Office (TCO) is responsible for review and negotiation (as required) for all in-coming MTAs, and develops / negotiates all out-going MTAs for OSU researchers. MTAs must be signed by an authorized university signatory; OSU MTA signatories are within TCO. The TCO website ([www.tco.osu.edu](http://www.tco.osu.edu)) has on-line forms, electronic submission tools, and further instructions. TCO Materials Transfer specialists stand by to help you prepare for material transfers and our resident commercialization resource, Jean Schelhorn, is available to assist with such matters.

Transfers with commercial entities require case-specific review and often case-specific negotiation to ensure OSU and faculty member's interests are protected. In some cases commercial entities may seek ownership of inventions or derivatives made using transferred materials. Thus, a thorough review is important! TCO could recommend an out-going MTA be shifted to a license agreement. In rare cases you may be advised to "walk away" from the transfer if terms cannot be negotiated to a mutually satisfactory point.

Transfers between academic institutions are generally straightforward. Most academic institutions are signatories to the Uniform Biological Materials Transfer Agreement (UBMTA), which provides standard terms for material transfers. Please visit the TCO web site ([www.tco.osu.edu](http://www.tco.osu.edu)) for detailed information and instructions for both incoming and outgoing transfers.

NIH Center for Scientific Review – Peer Review Notes September Edition available

<http://public.csr.nih.gov/aboutcsr/NewsAndPublications/PeerReviewNotes/Pages/Peer-Review-Notes-Sep-2012.aspx>

## SUMMER RESEARCH PROGRAM – UPDATE

August 17, 2012 marked the end of this year's Summer Research Program for veterinary students. It was a busy and shortened summer this year due to the semester conversion. Aside from working on their projects, students attended five Brown Bag Seminars, took a field trip to the Biomedical Research Tower, and 16 attended and presented their projects at the Merial NIH National Veterinary Scholars Symposium (below). This year, the format for the final retreat was changed with each student giving a 5-minute power point presentation. All presentations took place in the Goss Lab Auditorium. We were honored with the presence of Dr. Boyd and Mrs. Anne Epperson. The Epperson's sponsored two students in the program. We look forward to seeing the finished product of the projects at next year's Research Day, tentatively set for April 11, 2013.

### Merial-NIH National Veterinary Scholars

**Symposium** - Sixteen students attended the Merial-NIH National Veterinary Scholars Symposium (8/2/12-8/5/12). This year's symposium was hosted by Colorado State's College of Veterinary Medicine and Biomedical Sciences. Students attended plenary sessions focused on this year's theme "Comparative Medicine: The Key to Translation" Keynote speakers included Dr. Elias Zerhouni, President of Sanofi Research and Development, Dr. Kevin Fitzgerald, veterinarian and star of several Animal Planet reality TV shows, and Dr. Temple Grandin, professor of Animal Science at CSU. During the banquet dinner, we were treated to a keynote address by Dr. Ed Hoover (OSU/CVM alumnus), this year's recipient of the Merial-AAVMC Excellence in Research Award. Our students presented results from their summer research projects in three poster sessions. This year marked the largest attendance to the symposium with over 500 students and program directors participating. Also in attendance from the College were Drs. Patrick Green, Mike Oglesbee, Jim Belknap and Ms. Michele Morscher, who participated in planning sessions and workshops. We look forward to hosting this symposium in 2016.

### 2013 Summer Research Program – Call for Mentors

Please contact Michele Morscher if you are interested in being a mentor for the 2013 Summer Research Program. This program is open to first and second year veterinary students who wish to work on a research project during the summer of 2013. More information of the program can be found at the following link:

<http://vet.osu.edu/research/veterinary-scholar-summer-research-program>

## COUNCIL FOR RESEARCH ACTIVITIES – UPDATE

The Council for Research met on August 21 and awarded the following canine grants:

Platelet function in dogs with chronic kidney disease – **Byron, J**; Couto, CG; Dudley, A; Pressler, B

The effect of microencapsulated thermocyte-like murine fibroblasts in canine adipose tissue – **Chen, G**; Adin, C; Allen, M; Duncan, R; Ziouzenkova, O

Influenza infection in domestic dogs – **Lee, CW**; Daniels, J

Hsp70 mediated protection against viral neurovirulence – **Oglesbee, M**; Li, J

*Helicobacter pylori* as a possible initiator of uremic gastropathy in dogs with chronic kidney disease – **Pressler, B**; Hall, M; Daniels, J

### AKC Canine Health Foundation Resident-Scientist Fellowship –

Congratulations go to Dr. Lance Visser as a recipient of the AKC Canine Health Foundation Resident-Scientist Fellowship. This Fellowship program is a new initiative that recognizes the importance of identifying and supporting future clinician-scientists. Funds were allocated for five awards nationally and OSU was selected as recipient for one of these awards. The CFR met to discuss and rank the submitted applications. Dr. Visser is a 2<sup>nd</sup> year cardiology resident in VCS and has initiated a study entitled, "Echocardiographic Assessment of Right Ventricular Function in Conscious Healthy Dogs." He will receive \$10,000 to support his research and \$2,000 for travel to attend a meeting to present his research.

## Funding Opportunities Database Transitioned to InfoEd SPIN

As of July 1, 2012 OSU moved from COS to InfoED SPIN as its searchable database for identifying funding opportunities. The recent substantial increase in subscription cost by the publisher of COS led OSU to look for alternatives. SPIN was selected because of its similar functionality at a fraction of the cost. The SPIN suite of products includes SPIN (searchable funding database), GENIUS (tool for creating profiles), and SMARTS (customized e-mail reports and alerts). Users of COS will find SPIN similar to operate; however, training is available. See the link below for more info:

<http://research.osu.edu/2012/06/infoed-spin-training/>



**GRANT AWARDS**

**Dr. Tracey Papenfuss (VBS) NIH R21** *Regulatory myeloid cells in inflammatory disease: Therapy and targeted generation with micro particles*

**Dr. Li Wu (VBS) NIH R21** *Novel host proteins in the HIV-1 preintegration complexes*

**Dr. Pat Green and Dr. Stefan Niewiesk (VBS) NIH R21** *Role of viral APH-2 in HTLV-2 replication and persistence*

**Dr. Tom Rosol and Dr. Mike Oglesbee NIH T32** *Mouse pathobiology: models of human disease*

**Dr. Nong Inpanbutr (VBS) Nestle Purina PetCare** *Calcitriol treatment reduces chemical-induced cancer incidence: An in vitro model for using Calcitriol as a chemopreventive agent*

**Dr. Brad Bolon (VBS) Portola Pharmaceuticals** *Research services support in toxicologic neuropathology*

**Dr. Bill Kisseberth (VCS) and Dr. Cheryl London (VCS-VBS) SIAC, Inc. (COTC007b)** *Preclinical comparison of three indenoisoquinoline candidates in tumor bearing dogs*

**Dr. Cheryl London (VCS-VBS) Synta** *Evaluation of Elesclomol pharmacokinetics in dogs with cancer*

**Dr. Bill Kisseberth (VCS) and Dr. Cheryl London (VCS-VBS) Sanofi-Aventis COTC018:** *Evaluation of iniparib in tumor bearing dogs to define its pharmacokinetic profile and biological activity*

**Dr. Brad Bolon (VBS) Abbott Laboratories** *Neuropathy peer review for brain sections from a general toxicity study performed on non-human primates*

**Dr. Tom Rosol (VBS) and Dr. Ramiro Toribio (VCS) Abbott Laboratories** *Bioavailability of paricalcitol to comparators on calcium metabolism and vitamin D receptor function in vivo and in vitro*

**Dr. Lisa Berman-Booty (VBS), Dr. Ching-Shih Chen (Mentor-Pharmacy) and Dr. Tom Rosol (Mentor VBS) NIH K01** *Inhibition of prostate carcinogenesis & tumor growth by energy restriction-mimetic agents*

**Dr. Julie Byron (VCS) Intervet/Schering Plough** *Signalment and characteristics of female dogs with urinary incontinence at first presentation*

**Dr. Sam Hurcombe (VCS) Morris Animal Foundation** *Evaluation of darkfield microscopy in equine surgical colic*

**Dr. Jim Belknap (VCS) Grayson-Jockey Club** *Laminar signaling in supporting limb laminitis*

**Dr. Bill Kisseberth (VCS) Colorado State University** *Kit mutation and localization status as response predictors in canine mast cell tumors treated with toceranib or vinblastine: A multi-center response-adaptive randomized trial*

**Dr. Alicia Bertone (VCS) Pall Corporation** *Characterization of the performance of the Pall equine bone marrow stem cell harvest system (Pall E-Stem filter set)*

**Dr. Judy Hickman-Davis (VPM-ULAR) American Association for Lab Animal Science** *Impact of ventilated caging on water intake and loss in four strains of laboratory mouse*

**Dr. Tracey Papenfuss (VBS) National Blood Foundation** *Development of myeloid derived suppressor cell therapy for the treatment of inflammatory disease*

**Dr. Young Lin (VBS) Cotton Inc.** *Gossypol-enriched mozzarella cheese, with anti-breast cancer chemopreventive activity*

**Dr. Alicia Bertone (VCS) US Equestrian Federation Inc.** *Regulation of GABA receptors in response to various medications commonly used as "calming agents" in horses*

**Dr. Yasuko Rikihisa (VBS) NIH R01** *Keys to prevent cholesterol robbery and infection by intracellular bacteria*

**Dr. Li Wu (VBS) NIH R21** *The role of UBE2V1 in HIV-1 restriction in primary monocytes*

**Dr. Jim Belknap (VCS) Morris Animal Foundation** *IGF-1 receptor signaling in the laminar basal epithelial cell in endocrinopathic laminitis*

**Dr. Andy Hillier (VCS) Novartis INT-11-006** *A randomized, multicenter evaluation of the efficacy and safety of Atopica concurrent with steroid use for the treatment of atopic dermatitis in dogs*

**Dr. Paivi Rajala-Schultz (VPM) and Dr. Gustavo Schuenemann (VPM) USDA NIFA** *Impact of drying-off practices on udder health, milk production and cow behavior*

**RECENT SELECTED PUBLICATIONS**

**Bas S, Pinto CG**, Day ML, **Schuenemann GM**. Effect of intrauterine administration of gonadotropin releasing hormone on serum LH concentrations in lactating dairy cows. *Theriogenology*. 2012 Aug 13.

**Wittum TE**, Mollenkopf DF, Erdman MM. First detection of *Salmonella enterica* producing CTX-M cephalosporinase in US livestock populations. *Appl Environ Microbiol*. 2012 Aug 10.

Doueiri R, Anupam R, Kvaratskhelia M, Green KB, Lairmore MD, **Green PL**. Comparative host protein interactions with HTLV-1 p30 and HTLV-2 p28: insights into difference in pathobiology of human retroviruses. *Retrovirology*. 2012 Aug 9;9:64.

Traylor ZP, Aeffner F, **Davis IC**. Influenza A H1N1 induces declines in alveolar gas exchange in mice consistent with rapid post-infection progression from acute lung injury to ARDS. *Influenza Other Respi Viruses*. 2012 Aug 2.

Tiao N, Darrington C, **Molla B, Saville WJ**, Tilahun G, Kwok OC, **Gebreyes WA**, Lappin MR, Jones JL, Dubey JP. An investigation into the seroprevalence of *Toxoplasma gondii*, *Bartonella* spp., feline immunodeficiency virus (FIV), and feline leukaemia virus (FeLV) in cats in Addis Ababa, Ethiopia. *Epidemiol Infect*. 2012 Aug 2:1-5.

de Brito Galvao JF, **Kisseberth WC**, Murahari S, Sutayatram S, **Chew DJ, Inpanbutr N**. Effects of gemcitabine and gemcitabine in combination with carboplatin on five canine transitional cell carcinoma cell lines. *Am J Vet Res*. 2012 Aug;73(8):1262-72.

**Moore SA, Oglesbee MJ**. Involvement of the choroid plexus in the inflammatory response after acute spinal cord injury in dogs: An immunohistochemical study. *Vet Immunol Immunopathol*. 2012 Aug 15;148(3-4):348-52. Epub 2012 Jul 13.

Shidaifat F, **Lin YC**. Testosterone effect on the expression of genes that mediate testosterone metabolism and genes that mediate the effect of those metabolites on the prostate. *Life Sci*. 2012 Sep 4;91(5-6):194-8.

Esseili MA, Wang Q, Zhang Z, **Saif LJ**. Internalization of sapovirus, a surrogate for norovirus, in romaine lettuce and the effect of lettuce latex on virus infectivity. *Appl Environ Microbiol*. 2012 Sep;78(17):6271-9.

Yin H, Kannian P, Dissinger N, Haines R, **Niewiesk S, Green PL**. Human T-cell leukemia virus type 2 antisense viral protein 2 is dispensable for in vitro immortalization but functions to repress early virus replication in vivo. *J Virol*. 2012 Aug;86(16):8412-21.

**Brooks CL**. Molecular mechanisms of prolactin and its receptor. *Endocr Rev*. 2012 Aug;33(4):504-25.

Cernicchiaro N, Pearl DL, McEwen SA, Harpster L, Homan HJ, Linz GM, **Lejeune JT**. Association of Wild Bird Density and Farm Management Factors with the Prevalence of *E. coli* O157 in Dairy Herds in Ohio (2007-2009). *Zoonoses Public Health*. 2012 Aug;59(5):320-329.

Gilger BC, **Wilkie DA**, Salmon JH, Peel MR. A topical aqueous calcineurin inhibitor for the treatment of naturally occurring keratoconjunctivitis sicca in dogs. *Vet Ophthalmol*. 2012 Jul 31.

Leise BS, Watts M, Tanhoff E, Johnson PJ, Black SJ, **Belknap JK**. Laminar Regulation of STAT1 and STAT3 in Black Walnut Extract and Carbohydrate Overload Induced Models of Laminitis. *J Vet Intern Med*. 2012 Jul;26(4):996-1004.

Baker SA, Van-Balen J, Lu B, **Hillier A, Hoet AE**. Antimicrobial drug use in dogs prior to admission to a veterinary teaching hospital. *J Am Vet Med Assoc*. 2012 Jul 15;241(2):210-7.

Suzuki K, Uchida E, **Schober KE, Niehaus A, Rings MD, Lakritz J**. Cardiac troponin I in calves with congenital heart disease. *J Vet Intern Med*. 2012 Jul;26(4):1056-60.

## NEW FRINGE BENEFITS RATES for FY2012!

Fringe benefits rates that will be charged to Sponsored Projects effective 7/1/12 have been adjusted:

Faculty: 30.4%  
Staff: 36.1%  
Postdocs & GRAs 10%  
See for more info

<http://rf.osu.edu/development/e-fringe.cfm>

## ePA005 UPDATE

The ePA005 has been revised to address the use of University intellectual property. Question 7.c asks:

“Does this project use Ohio State University intellectual property (e.g., a drug, device or other patented or copyrighted material, information or software) that has been licensed by the University to an outside company or organization, including the sponsor of the project?  No  Yes

If you marked 7.C. Yes: Please list the name of the company or organization(s):”

If you have questions regarding this revision, please contact the Office of Research Compliance at [conflictinfo@osu.edu](mailto:conflictinfo@osu.edu)

## Celebration of Research 2012

### October is “Celebration of Research Month” at Ohio State –

The Office of Research is sponsoring a series of event to highlight the innovative research taking place at the university as well as the wide range of support services available to researchers.

**Tuesday October 2 Research Expo 9:30AM-1:00PM Great Hall-Ohio Union** learn about the many research centers, core laboratories, vendors, and support services available to researchers.

### Thursday October 11 State of Research Address

Dr. Caroline Whitacre, Vice President for Research, will present the annual State of Research Address at 8:30 AM in the US Bank Conference Theater at the Ohio Union

- Announcement of the 2012 Innovator of the Year Awards

<http://research.osu.edu/celebrationofresearch/>

### Administrative Research Council (ARC) Meeting

**Tuesday 10/23 115 BRT All are welcome!**

- Office of Research Updates  
InfoEd SPIN (Funding Database) and GENUIS/SMARTS (Funding Alerts)
- Research Administration and Compliance Update
- ARC Organization Announcements
- For more information, contact: [ORevents@research.osu.edu](mailto:ORevents@research.osu.edu)

### Office of Research Training Sessions in October

<http://research.osu.edu/researchers/training/classroom/>

- Finding Funding Workshop (SPIN) 10/18
- Animal Care and Use at OSU 10/23
- IRB Exempt Forms Help 10/24
- Intro to IRB Procedures and Resources 10/25
- PI Roles and Responsibilities 10/26

### Biohazards in Research: Office of Environmental Health and Safety Training

- OSHA Bloodborne Pathogen Training: Research involving human blood, body fluids, human pathogens, human cell lines, or human tissues. In rare cases, this may apply to non-human primate tissues.
- Biosafety Level 2 Practices
- Biosafety Level 3 Practices and Procedures
- Biological Safety Cabinets

<http://ehs.osu.edu/Training/Default.aspx>

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