Research News – June 2011

News:

- Successful CVM Summer Vet Student Program starts 8th season
- Feature: Small Animal Imaging Shared Resource
- CVM Council for Research Update- New Equine Grant Program
- Vet Student Summer Program Update
- Recent Grant Awards & Publications
- Upcoming Seminars and Workshops
- Grant Support Office Update:
  - Projects
  - Funding Opportunities
  - Policy Updates – NIH Fiscal Policy for FY2011
  - What You Need to Know – Training Requirements for Investigators/Office of Research Risks and Protection

NEWS Headlines

Dr. Lorch and Colleagues Discover Role of Calcium-Sensing in Hypercalcemia of Cancer

The calcium-sensing receptor (CaR) is responsible for the regulation of extracellular calcium (Ca2+) homeostasis. CaR activation has been shown to increase proliferation in several cancer cell lines; however, its presence or function has never been documented in lung cancer. Dr. Gwendolen “Wendy” Lorch, DVM, PhD, Assistant Professor in the Department of Clinical Sciences and her team report that Ca2+ activated CaR results in MAPK-mediated stimulation of parathyroid hormone–related protein
(PTHrP) production in human lung squamous cell carcinoma (SCC) lines and humoral hypercalcemia of malignancy (HHM) in vivo. Furthermore, a single nucleotide polymorphism in CaR identified from a hypercalcemia-inducing lung SCC reduced the receptor's activation threshold leading to increased PTHrP expression and secretion. Increasing the expression of either wild-type CaR or a CaR variant with a single nucleotide polymorphism in the cytoplasmic domain was both necessary and sufficient for lung SCC to induce HHM. Because lung cancer patients who frequently develop HHM and PTHrP expression in lung cancer has been only partially explained, the significance of their findings indicates that CaR variants may provide a positive feedback between PTHrP and calcium and result in the syndrome of HHM.


The CVM Summer Vet Student Program is starting its 8th year with a record 47 students! The primary goal of the CVM Summer Research Program is to develop veterinary scientists with knowledge and skills to accomplish hypothesis-driven research projects and to explore various career opportunities. The breadth of the faculty’s expertise offers exceptional opportunities for research, interdisciplinary teaching in the veterinary, medical and state-of-the-art clinical laboratory services. Trainees will perform research projects, attend seminars, and participate in field trips. Student stipends are supported from a variety of sources including a National Institutes of Health T-35 Training Grant, department and college funds, alumni gifts, endowments, and private foundation grants such as Merial Scholars Program and Morris Animal Foundation. Students will be eligible to attend the Merial Veterinary Scholars Research Symposium, the College's Annual Research Symposium, and encouraged to attend National Scientific Meetings to present their research. In addition, training in scientific writing and presentation will provide students with skills to publish their research findings in suitable scientific journals.

Do you need state-of-the-art imaging for your research? We have the solution.

College Resource: The mission of the College Small Animal Research Imaging Core (SARIC) is to provide non-invasive, whole animal imaging of rodents used in preclinical research.
Core Services/Functions: The core provides training and consultation in the use of the following instruments: 1. IVIS 200 bioluminescent imaging workstation, 2. Faxitron LX-60 microradiography cabinet, 3. VIVO 660 high-frequency ultrasound unit. Core director: Matthew J. Allen, Vet. M.B., Ph.D., Associate Professor, Small Animal Surgery, [http://vet.osu.edu/biosciences/small-animal-research-imaging-core](http://vet.osu.edu/biosciences/small-animal-research-imaging-core)

OSU Comprehensive Cancer Center Small Animal Imaging Shared Resources: The Small Animal Imaging Shared Resource (SAISR) is a state-of-the-art, small animal imaging facility available to investigators at OSUCCC–James as well as to other academic and commercial institutions. The SAISR houses high-resolution imaging equipment and offers assistance from professionals who are experts in operating each imaging modality and small animal handling procedures as well as in analytical software support for quantitative image analysis. Image reconstruction, multi-modality fusion, high-resolution graphics and networking to the facility's server are also available to investigators using the resource. Directors: Periannan Kuppusamy, PhD and Kimerly A. Powell, PhD [http://cancer.osu.edu/research/cancerresearch/sharedresources/sai/pages/index.aspx](http://cancer.osu.edu/research/cancerresearch/sharedresources/sai/pages/index.aspx)

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**New Equine Pilot Grant Program!** Based on recommendations from the Department of Veterinary Clinical Sciences Research Committee and other College leaders, residual funds from the Equine Research Fund will now be made available for research grants to faculty. The funds will be made available on a competitive basis to support equine research. The Council will review Canine, Paladin, and Equine grant proposals, which are due June 15th. [http://vet.osu.edu/research/intramural-grants](http://vet.osu.edu/research/intramural-grants) Please consider giving to new discoveries through research and graduate studies: [http://vet.osu.edu/cvm/giving-research](http://vet.osu.edu/cvm/giving-research)
Grants

Dr. Stefan Niewiesk, Merus B.V.  *Testing of neutralizing antibodies against RSV*

Dr. Tracey Papenfuss, Morris Animal Foundation  *Effect of the tumor microenvironment on canine myeloid cells; generation of regulatory myeloid cells*

Dr. Lyn Wancket, NIH K01 Award  *Role of Mkp-1 in pneumonia*

- **PUBLICATIONS**


Saji M, Narahara K, McCarty SK, Vasko VV, La Perle KM, Porter K, Jarjoura D,


Waller AP, Kohler K, Burns TA, Mudge MC, Belknap JK, Lacombe VA. Naturally occurring compensated insulin resistance selectively alters glucose transporters in visceral and subcutaneous adipose tissue without change in AS160 activation. Biochim Biophys Acta. 2011 Feb 23


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**SEMINARS, MEETINGS, AND WORKSHOPS**

- The XXV Symposium of the International Association for Comparative Research on Leukemia and Related Diseases, Tokyo Japan, Sept. 15-1, 2011


- Frontiers in Retrovirology 2011 Conference in Amsterdam, Netherlands, Oct. 3-5.

- Upcoming training offered through the Office of Sponsored Programs
  [http://osp.osu.edu/training/](http://osp.osu.edu/training/)
  - PI Portal Practice Lab – June 9
  - IRB Exempt Forms Help – June 29
  - A large number of online topics available as well; see website for more information
Office Metrics: In the last month, a T32 competitive renewal, 1 postdoctoral fellowship, 1 NIH R01, 1 USDA, 1 NIH R21, 1 NIH Fogarty progress report, and 1 NIH eSNAP progress report were processed through the GSO. Eight ePA005s were generated for investigators and 14 ePA005s were reviewed for approval. E-certs, PETS and monthly Problem Projects were managed along with requests for project extensions. At present, an NIH K award, 1 NIH R01 and 1 Internal Canine proposal are in process. Program initiatives include development of a pre-review grant evaluation format for CVM investigators, a brown bag education and training seminar series.

The May Issue of NIH Peer Review Notes is now available online: Topics include Center for Scientific Review (CSR) Updates, how cover letters help application reviews, how the CSR manages the review or increasing numbers of applications when the budget has stagnated http://cms.csr.nih.gov/NewsandReports/PeerReviewNotes/

UPCOMING FUNDING OPPORTUNITIES

Intramural Grants:

CALL FOR CANINE, PALADIN and EQUINE GRANT PROPOSALS

Deadline: June 15, 2011

Equine Grants – special criteria – please make sure you read the ‘Equine Research Fund Initiative’ document before applying for the funds. All information – criteria, instructions and application can be found at the following link: http://vet.osu.edu/research/grant-application

Extramural Funding Opportunities

Pfizer ASPIRE Competitive Grant Program in Antimicrobial Research: Basic and Translational Research to Understand Impact of Antimicrobials on Endogenous Gastrointestinal Microflora  Due June 15, 2011

Winn Feline Foundation funds research into health issues affecting cats. Budget requests up to $35,000. Deadline July 15, 2011
http://www.winnfelinehealth.org/Pages/11_Miller_Grant_Announcement_leg_bw.pdf

American Kennel Club ACORN Grants Open Submission: These are small grants ($12,000 or less (plus 8% indirect costs) for up to 1 year. Applications may be submitted at any time, and notice of award decisions will be made within 90 days of application submission. The ACORN program is designed to allow researchers to complete small, relatively short timeframe
projects, test research hypotheses, and/or generate preliminary data for possible future grant proposals as larger scale or longer term studies. [http://www.akcchf.org/research/application-process/acorn-grant-program/](http://www.akcchf.org/research/application-process/acorn-grant-program/)

**Maddie’s Fund Shelter Medicine Externship** provides stipend support to 3rd and 4th year veterinary students interested in externship at adoption-guarantee shelters. [Open application](http://fundingopps.cos.com/alerts/91578)

**Pet Advocacy Grants** Banfield Charitable Trust: promote preventive healthcare for pets, teach children about pet care and pet responsibilities, and program services that keep pets and families together. Proposals [due June 30, 2011 and Nov. 30, 2011](http://fundingopps.cos.com/alerts/93764)

**Barbour Foundation Grants for Universities and Veterinary Schools** funds organizations that provide programs to protect, preserve, and nurture companion animals, large animals, native wildlife, and marine species in the United States. Hands on care, animal health/welfare, and veterinary medical research are priorities. [Due July 31, 2011](http://fundingopps.cos.com/alerts/30171)

**Great Lakes Regional Centers of Excellence for Biodefense and Emerging Infectious Diseases Research Funding Opportunities:**
- **Career Development Projects:** Due August, 2011  

**Wellcome Trust Principal Research Fellowships** Principal Research Fellowships are the most prestigious of the Wellcome Trust's personal awards and provide long-term support for researchers of international standing. The fellowships are particularly suitable for senior researchers currently based overseas who wish to work in the United Kingdom or Republic of Ireland. Successful candidates will have an established track record in research at the highest level. [Open application](http://fundingopps.cos.com/alerts/43606)

**USDA Opportunities**


**Sustainable Agriculture Research and Education Program (SARE), Proposals Due July 14, 2011** [http://www.csrees.usda.gov/fo/sustainableagricultureresearchandeducation.cfm](http://www.csrees.usda.gov/fo/sustainableagricultureresearchandeducation.cfm)

**FDA-NIH**

Advancing Regulatory Science through Development of Innovative Methodologies in the Area of Antimicrobial Development (U01)  
Letter of Intent required due June 15; Application due July 1, 2011  
NIH Funding Opportunities

**Biomarkers of Infection-Associated Cancers (R01 & R21)**  
National Cancer Institute Due June 5, 2011  

**Research Education Program for Laboratory Animal Medicine Veterinarians (R25)**  
(RFA-RR-11-003) National Center for Research Resources Due Date: June 09, 2011  

**NIH Pathway to Independence K99/R00 Career Transition Award**  
The objective of the NIH Pathway to Independence Award (K99/R00) initiative is to assist postdoctoral investigators in transitioning to a stable independent research position with NIH or other independent research funding. New Parent Funding Opportunity Announcement just released:  
Standard due dates apply: June 12, October 12, and February 12

**Independent Scientist Award K02**  
The K02 award provides three, four, or five years of salary support and “protected time” for newly independent (see IC provisions) scientists who can demonstrate the need for a period of intensive research focus as a means of enhancing their research careers.  
Standard due dates apply: June 12, October 12, and February 12

**Short Term Research Career Enhancement Opportunities for Established Veterinarians (K18) (RFA-RR-11-002)**  
NCRR: provides a short term (6-24 m) specialized research career opportunity for an established veterinarian with an interest in comparative medicine and translational research. Due June 14, 2011  

**The Infant Immune System: Implications for Vaccines and Response to Infections (R01).**  
(RFA-AI-11-010) National Institute of Allergy and Infectious Diseases. Due July 08, 2011  

**International Research in Infectious Diseases, including AIDS (R01)**  
(PAR-11-145) National Institute of Allergy and Infectious Diseases. Due June 23, 2011  

**Beyond HAART: Innovative Therapies to Control HIV-1 (P01).**  
(RFA-AI-11-012) National Institute of Allergy and Infectious Diseases. Due Date: July 19, 2011  

**Systems Approach to Immunity and Inflammation (U19)**  
(RFA-AI-11-017) National Institute of Allergy and Infectious Diseases Due August 30, 2011  
**National Science Foundation**

**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

**Sponsor News and Policy Updates**

**NIH Fiscal Policy for Grant Awards – FY 2011**

**Notice Number:** NOT-OD-11-068  May 20, 2011

**Purpose**

This Notice provides guidance about the NIH Fiscal Operations Plan for FY 2011 and implements the Department of Defense and Full-Year Continuing Appropriations Act of 2011 (P.L. 112-10). The Act provides NIH with $30.9 billion or nearly 1 percent less than the total FY 2010 budget authority level of $31.2 billion. The NIH will continue to manage its portfolio in biomedical research investments in a manner similar to that described in the FY 2010 Fiscal Policy Notice (see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-039.html). This includes continuing to address the need for a highly productive pool of researchers by providing support for new investigators.

The following NIH fiscal policies are instituted in FY 2011:

**Non-Competing Research Awards for All NIH Institutes and Centers (ICs) Except the National Cancer Institute (NCI):** The FY 2011 appropriation level specified in P.L. 112-10 reduces funding from FY 2010 levels and thus warrants reductions in commitment levels for NIH research grants. Modular and non-modular research grants, from all ICs, with the single exception of NCI, will be reduced to 1 percent below the FY 2010 award level. Inflationary adjustments for recurring costs on non-competing research grants in FY 2012 and beyond will be set at the 2 percent level, calculated based on the adjusted FY 2011 level. This policy does not apply to projects supported by Career Awards, SBIR/STTRs, and Ruth L. Kirschstein-National Research Service Award (NRSA) Individual Fellowships & Institutional Training Grants. Awards that have already been made in FY 2011 which are impacted by this policy may be revised.

**Non-Competing Research Awards for NCI:** For NCI, modular and non-modular research grants will be reduced to 3 percent below the FY 2010 award level. Inflationary adjustments for recurring costs on non-competing research grants in FY 2012 and beyond will be set at the 2 percent level, calculated based on the adjusted FY 2011 level. This policy does not apply to projects supported by Career Awards, SBIR/STTRs, and Ruth L. Kirschstein-National Research Service Award (NRSA) Individual Fellowships & Institutional Training Grants. Awards that have already been made in FY 2011 which are impacted by this policy may be revised.

**Competing Research Awards:** Each NIH Institute and Center (IC) will manage its competing portfolio using funds that have not been committed for non-competing awards. It is estimated this will allow ICs to support the NIH investigator pool with approximately 9,050 new and competing Research Project Grants (RPGs). Each IC will establish fiscal policies consistent with these NIH-
wide policies according to its specific scientific and programmatic imperatives. Consistent with the policy for non-competing awards, future inflationary adjustments for recurring costs on competing research grants will be provided at 2 percent. Awards that have already been made in FY 2011 which are affected by this policy may be revised in accordance with the guidelines in this Notice.

**New Investigators:** NIH will continue to support new investigators on R01 equivalent awards at success rates equivalent to that of established investigators submitting new R01 equivalent applications. Achievement of comparable success rates should permit the NIH to support new investigators in accordance with the policies established in FY 2009 and FY 2010 and described at [http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-013.html](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-013.html) and at [http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-039.html](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-039.html).

**Ruth L. Kirschstein National Research Service Awards (NRSA):** The NIH will implement a 2 percent increase at all stipend levels. Further information about the NRSA program in FY 2011 is available at [NOT-OD-11-067](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-11-067).

**Non-Competing Research Awards for All NIH Institutes and Centers (ICs) Except the National Cancer Institute (NCI):** The FY 2011 appropriation level specified in P.L. 112-10 reduces funding from FY 2010 levels and thus warrants reductions in commitment levels for NIH research grants. Non-modular research grants, from all ICs, with the single exception of NCI, will be reduced to 1 percent below the FY 2010 award level. Future year commitments will be adjusted for inflation based on this revised FY 2011 level, taking into account the policy assumption in the FY 2012 President’s Budget. Modular grants will be reduced to 1 percent below the FY 2010 level and may be reduced by an inflationary adjustment level set by each Institute or Center (up to the level set by that Institute or Center for non-modular research grants). The adjusted FY2011 award level will also be the new base for future year commitments.

**Non-Competing Research Awards for NCI:** For NCI, Non-modular research grants will be reduced to 3 percent below the FY 2010 award level. Future year commitments will be adjusted for inflation based on this revised FY 2011 level, taking into account the policy assumption in the FY 2012 President’s Budget. Modular grants will be reduced to 3 percent below the FY 2010 level.

**Additional Information:** Additional details on Fiscal Operations, including specific funding strategies for ICs will be posted at [http://grants.nih.gov/grants/financial/index.htm](http://grants.nih.gov/grants/financial/index.htm)

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**WHAT YOU NEED TO KNOW**

OSU Office of Responsible Research Practices: Training Requirements for Investigators - *Are You Up to Date?*

Depending on the type of research with which you are involved, PIs, post-docs, research assistants and graduate students are subject to the following required training:
Animal Use – Web-based training required for all investigators who use animals in research

Human Subjects Research - Collaborative Institutional Training Initiative (CITI) – Web-based training course required for all investigators and key personnel on human subjects protocols. Initial and continuing education (every 3 years) are required.

Occupational Health Registry - Web-based system for submitting animal handler occupational health exposure information

Responsible Conduct of Research - Responsible Conduct of Research (RCR) – Web-based training course that can be used by trainees supported by National Institutes of Health (NIH) Institutional National Research Training Grants (T32, T34) and by students and postdoctoral researchers involved in National Science Foundation (NSF) proposals to satisfy the requirement for instruction in the Responsible Conduct of Research

Conflict of Interest Submission - Web-based tool for submitting the university's annual financial Conflict of Interest (COI) screening/disclosure (New federal reporting regulations require “all persons who are involved in the design, conduct, or reporting of research” to complete an annual COI disclosure)

Biohazards in Research Training - Occupational Health and Safety – Web-based training course required when research involves biohazards

To access on-line training in any of these areas or for contact list for additional information, access the following link: http://researchonline.osu.edu/training/

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