Discovery June 2007

Misty Bailey
Editor

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A poster by Drs. HAN Al-Wadei, M Cekanova, T Masi, and TA Al-Wadei entitled “Cyclic AMP- mediated antagonistic effects of retinoids on lung cancers of different phenotype and cell lineage” was presented at April’s American Association for Cancer Research (AACR) meeting held in Los Angeles.

Also at the AACR meeting, Drs. SJ Baek and M Sukhthankar presented a poster entitled “Green tea catechins suppress basic fibroblast growth factor in vitro and in vivo.”

Dr. Tobias and Dr. SJ Baek presented “Non-steroidal anti-inflammatory drug activated gene (NAG-1) as a chemopreventive target in canine lung adenocarcinoma.”

Dr. DJ Pun present a poster titled “Microarray analysis of human colorectal cancer cells treated with three different PPARα ligands” at the Keystone Symposium of Nuclear Receptor Pathways and Metabolic Regulation. The symposium was held in Steamboat Springs, CO.

In April, Dr. L. Frank presented “Estrogen receptor antagonist and hair regrowth in dogs with hair cycle arrest (Alopexia X)” at the North American Veterinary Dermatology Forum, Kauai, HI. (abstract Proc. 22: 297).

Dr. N. Frank presented a workshop for researchers in the field of equine laminitis at the Havemeyer Equine Laminitis Workshop.

Dr. Seung J. Baek received the university’s highest faculty honor at the April 11 Chancellor’s Honors Banquet by being named Macbeacher, a symbolic of his commitment not only to scholarship, but also to students and society. Chancellor Loren Crabtree presented the mace, the first award of the evening, to “Dr. Legendary,” as he affectionately known to some.

An honor for research and creative achievement went to Dr. Xiaomin Xu for his investigations into Alzheimer’s disease, and Dr. Seung J. Baek was recognized for professional promise in research and creative achievement for his studies in the chemopreventive effect of specific drugs and natural compounds.

Some interest has been expressed regarding expanding the program in coming years to include residents, interns, post-doctoral associates, and veterinary students. The research office welcomes future collaboration and would like to hear from anyone interested in contributing to future symposiums.

**Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00-10:00</td>
<td>Welcoming Remarks (A118 VTH*)</td>
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<tr>
<td>10:15-12:00</td>
<td>Poster Sessions (1st floor hallway)</td>
</tr>
<tr>
<td>1:00-3:15</td>
<td>Oral Presentations (A117 &amp; A118)</td>
</tr>
<tr>
<td>3:30-4:30</td>
<td>Closing Remarks &amp; Awards (A118)</td>
</tr>
</tbody>
</table>

*All events will take place in the Veterinary Teaching Hospital*

Veterinary students Tamera Lynn Lechner and Kristin Devere Miller (both of the Class of 2007) were also honored for having extraordinary professional promise.

At the CVMA’s 29th Annual Honors Convocation, Dr. Seung Baek received the Pfizer Animal Health Award for Excellence in Research for outstanding scientific achievement in veterinary medical research conducted within the past three years.

The criteria for the award are originality, innovation, and the ability to stimulate a scientific attitude in others.

Sarah Zika was presented the Morris D. Schneider Memorial Award, which goes to a member of the upper-one-third of the senior class who demonstrated the most promise in characteristics and motivation, inquiring mind and perseverance, and future success as a researcher of animal and human health problems.

**Phippis to Attend Meeting of Nobel Laureates in Germany**

Doctoral student Jonathan Phippis is one of 500 students and young researchers worldwide to be selected to attend the Meeting of Nobel Laureates in physiology or medicine this July. Only 51 students from the U.S. were selected this year.

Sixteen previous Nobel winners spanning the last 40 years will be in attendance. A notable American scientist attending this year is Dr. Craig C. Mello, who won the prize in 2006 with Dr. Andrew Fire for their discovery of RNA interference - gene silencing by double-stranded RNA.

Since 1951, the Lindau, Germany, meetings have allowed students to not only listen to the laureates’ lectures, but also to engage in round-table discussions with them.
NIH Responds to Electronic Submission Comments

The National Institutes of Health (NIH) announced recently that some changes will be made to the electronic submission process as a result of suggestions from users. A major complaint was the inability to view the entire application before submission. Still, the transition from PureEdge Viewer to an Adobe-based application system (one that will likely support full-application viewing) is behind schedule, originally set for an April 1 launch.

Nonetheless, some error and warning messages will be rewritten to lessen the urgency of certain messages and reserve stronger language for instances that might cause delays in processing or rejection of applications.

However, the cause of some of these warnings, the inconsistencies between eRA Commons and the Grants.gov application, is not being addressed, as NIH encourages investigators to update their eRA Commons information before submitting an application through Grants.gov.

The lengthy application guide was also updated in April, but NIH representatives suggest using the guide as a reference tool and not as a step-by-step set of instructions.

Funding Deadlines Drawing Near

Deadline Sponsor Program Therapeutic effect of horses on humans Up to 50,000 www.horsesandhumans.org/research

Jul. 5 NIH R01 renewals, revisions, & resubmits Varies www.nih.gov

Jul. 16 NIH R03, R21, R33, R34, R36 renewals, revisions, & resubmits Varies www.nih.gov

Jul. 20 Winn Feline Foundation Health issues affecting cats Up to 90,000 www.winnfelinefoundation.org

Aug. 1 Planet Dog Service animals & animal-assisted therapy 5,000 www.plantedg.org

Aug. 10 Bernice Barbour Foundation Preservation & care of animals Varies www.bernicebarbour.org


Ongoing Lotte & John Hecht Memorial Foundation Alternative medicine & cancer Varies www.hecht.org

Discovery: Research at the University of Tennessee College of Veterinary Medicine (2007) 2.2

Research Resource Spotlight

Isogenic.info Offers Animal Model Design Tips

Dr. Michael Festing’s Web site is definitively worth a look for anyone about to design a research project that will include animal models. Much of what he advises will simultaneously help reduce the number of animals needed for a study and improve the study design.

Sections such as “Uniformity” and “Blinding” discuss basic principles to keep in mind when planning a study, while sections like “Statistical analysis” and “Presenting results” focus on the ways to interpret the results. All sections emphasize the importance of early planning.

In addition, the site has information about toxicity testing and specifics about isogenic strains versus outbred stocks.

Winds of Change in U.S. Patent Laws

The U.S. House Subcommittee on Commerce of a high protein, low carbohydrate diet on urinary saturation of calcium oxalate in healthy cats

The final decision will be made in October 2008, and construction on the chosen facility is scheduled to begin in 2009, with the facility fully operational by 2013.

AAVI Sends Cissell to Brazil

The American Association of Veterinary Immunologists (AAVI) has awarded Robin Cissell a Junior Scientist Travel Stipend to attend the 8th International Veterinary Immunology Symposium in Ouro Preto, Brazil, this August.

The award is based on the merit of her abstract "Detection of antibodies to Oven Herpevirus-2 interleukin-10 homologue in sheep-associated malignant catarrhal fever." Only 7 recipients were awarded funds, which are supplied by the USDA Cooperative State Research, Education, and Extension Service.

Robin is a PhD student studying with Dr. Robert Donnell.

CVM Receives Over $705,000 for Sponsored Projects Since March

<table>
<thead>
<tr>
<th>Title</th>
<th>PI</th>
<th>Agency</th>
<th>Start Date</th>
<th>Type</th>
<th>S Amount</th>
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<tbody>
<tr>
<td>Pharmacokinetic and pharmacodynamic effects of an oral and intravenous drug in horses</td>
<td>HS Adair</td>
<td>Private industry</td>
<td>6/1/07</td>
<td>Year 1 of 1</td>
<td>13,129</td>
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<tr>
<td>Influence of a high protein, low carbohydrate diet on urinary satiation of calcium oxalate in healthy cats</td>
<td>JW Bartges</td>
<td>Morris Animal Foundation</td>
<td>5/1/07</td>
<td>1/1</td>
<td>4,000</td>
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<tr>
<td>Lysophosphatic acid and tissue factor in atherosclerosis</td>
<td>MZ Cui</td>
<td>NIH</td>
<td>5/1/07</td>
<td>4/4</td>
<td>240,270</td>
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<tr>
<td>Taxonomic inventory of endoparasitism in Pterodactylus birds from the Great Smoky Mountains National Park</td>
<td>CT Falkner</td>
<td>Discover Life in America, Inc.</td>
<td>4/1/07</td>
<td>1/1</td>
<td>3,465</td>
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<tr>
<td>Levothyroxine as a treatment for equine metabolic syndrome</td>
<td>N Frank</td>
<td>Lloyd, Inc.</td>
<td>4/1/07</td>
<td>1/2</td>
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<tr>
<td>Levothyroxine as a treatment for equine metabolic syndrome</td>
<td>N Frank</td>
<td>Grayson Jockey Club Research Foundation</td>
<td>4/1/07</td>
<td>1/2</td>
<td>26,638</td>
</tr>
<tr>
<td>Effects of SmartControl IR on insulin sensitivity in obese insulin resistant horses</td>
<td>N Frank</td>
<td>SmartPack Equine</td>
<td>6/1/07</td>
<td>1/1</td>
<td>77,945</td>
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<td>Evaluation of a multiple Prophylactic for the induction and maintenance of anesthesia in dogs</td>
<td>RC Harvey</td>
<td>Abbott Laboratories</td>
<td>6/1/07</td>
<td>1/1</td>
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<tr>
<td>Detection of coronavirus shedding in captive and wild-caught cheetahs in Southern Africa using real time PCR</td>
<td>MA Kennedy</td>
<td>Morris Animal Foundation</td>
<td>5/1/07</td>
<td>1/1</td>
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<tr>
<td>The role of the new zeta cleavage in Albino formation</td>
<td>X Xu</td>
<td>NIH</td>
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<td>1/5</td>
<td>297,250</td>
</tr>
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</table>

Dissecting the Impact Factor: What Does It Tell Us, and Does It Matter?

Dr. Michael Festing’s Web site is definitively worth a look for anyone about to design a research project that will include animal models. Much of what he advises will simultaneously help reduce the number of animals needed for a study and improve the study design.

The winds of change in U.S. Patent Laws have included the introduction of a new Patent Reform Act of 2007 (HR 1908) on April 26.

This bipartisan legislation was introduced last year and serves to update an antiquated patent process that is still used only in the United States. The bill would create a “first-to-file” system; the current American patent system grants patents to the first inventor rather than to the first to file a patent application. Therefore, currently, if someone can prove he or she invented something before the patent filer, a patent can be revoked.

Also notable is the addition of the post-grant review section of the bill, which states that anyone may file a petition for cancellation of a patent upon the completion of a grant project. This post-grant review will investigate questions of validity of a patent, and the current patent holder may file a response. To prevent abuse of this system, petitioners are prohibited from filing more than once and cannot present the same argument in court.

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Lan F. “If it’s Tuesday, I must be the student.” Lessons learned from the other side of the podium. J Vet Med Educ. 2007; 34:93-98.


Odoi A, Guthman JM, Gaschiri CK, and Omore A. Risk factors of gastrointestinal nematode parasite infections in small ruminants kept in smallholder mixed farms in Kenya. BMC Vet Res. 2007:3-76.


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Research at the University of Tennessee College of Veterinary Medicine

In this Issue

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Mark Your Calendar

2011 Annual Comparative and Experimental Medicine Graduate Student Research Symposium

Next week, the Comparative and Experimental Medicine Graduate Program will host its first annual research day to highlight graduate student projects.

The symposium, which will take place on June 22, will have 15 presenters of both scientific posters and talks (see schedule at right). Admission is free for anyone who wishes to view the posters or hear the presentations. Organizers expect to have at least a hundred attendees drop in throughout the day.

The goal of the symposium is to foster networks within the program by giving students an opportunity to share their research results, exchange ideas, and network with scientists in a variety of disciplines.

Students judged to have the best oral presentations will receive travel awards.

Some interest has been expressed regarding expanding the program in coming years to include residents, interns, post-doctoral fellows, and our faculty.

Several previous Nobel winners spanning the last 40 years will be in attendance. A notable American scientist attending this year is Dr. Craig C. Mello, who won the prize in 2006 with Dr. Andrew A. Fire for their discovery of RNA interference - gene silencing by double-stranded RNA.

Since 1951, the Lindau, Germany, meetings have allowed students to not only listen to the laureates’ lectures, but also to engage in round-table discussions with them.

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1:00-1:35 Oral Presentations (A117 & A118)

3:30-4:30 Closing Remarks & Awards (A118)

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"Discovering the future: Four themes for the new decade."

For more information about the symposium visit http://vet.utk.edu/research/researchday07.pdf for the full program of events.

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Research at the University of Tennessee College of Veterinary Medicine

A Legend, Rising Stars, and Diamonds in the Rough

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