6-2007

Discovery June 2007

Misty Bailey
Editor

Follow this and additional works at: http://trace.tennessee.edu/utk_discovery

Recommended Citation
http://trace.tennessee.edu/utk_discovery/13

This Article is brought to you for free and open access by the Veterinary Medicine -- Other Materials (Newsletters, Reports, Etc.) at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Discovery Research Newsletter by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.
A poster by Drs. HAN Al-Wadei, M Cekanova, T Mas i, Takahashi, and HM Schult er entitled "Cyclic AMP-modulated 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. S.-H Lee, M Cekanova, and S2 Back presented a poster entitled “6-gingerol induces cell cycle arrest and apoptosis through multiple mechanisms in human colorectal cancer cells.”

A poster entitled “Targeting over-expressed signaling proteins for the early detection of lung cancer by molecular imaging,” by Drs. HM Schult er, GW Kabala, TM Duda, R Adams, M Cekanova, M Majidi, A Meredith, M Akula, G Smith, T Mas i, and HAN Al-Wadei, was also presented at the AACR meeting.

In March, Drs. M Cekanova and X Li, JS Yuan, and Dr. SJ Baek presented a poster entitled “Microarray analysis of human colorectal cancer cells treated with three different PPAR δ ligands” at the Keystone Symposium of Nuclear Receptor Pathways to 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 (Alopecia X)” at the North American Veterinary Dermatology Forum, Kauai, HI. (Abstract Proc. 22: 209.)

A poster by M Cekanova, T Mas i, Takihashi, and HU Schult er entitled “Imaging diagnosis canine thoracic mesothelioma.” Vet Radiol Ultrasonogr. 2007;48:239-249.

Also at the Experimental Biology Annual Meeting, M Sukhthankar, Dr. K Yamaguchi, Dr. McEaste r, and Dr. SJ Baek presented “Green tea catechins suppress fibroblast growth factor in vitro and in vivo.”

A poster entitled “Anesthesia: Cancer pain management for small animal patients.” was presented at the American Association of Immunologists, held in Miami in March. Dr. Tobi as gave three lectures about gastrointestinal surgery emergencies and portosystemic shunts at the University of Pennsylvania School of Veterinary Medicine Penn Annual Conference in Philadelphia.

Dr. Tobias presented four lectures at the British Small Animal Veterinary Association Congress in Birmingham, UK, in April. The topics of her lectures ranged from portosystemic shunts to surgical gastrointestinal biopsies to challenging ear cases.

At the European Association of Veterinary Diagnostic Imaging (British and Irish Division) meeting, also in Birmingham, Dr. Tobias presented two lectures: “Advances in portosystemic shunt diagnosis” and “Radiology versus surgery: When results conflict.”

In this Issue

**Dr. ALFRED Lengendre received the university’s highest faculty honor at the April 11 Chancellor’s Honors Banquet by being named Macabeerian, 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. Legenderry,” 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.

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

At the CVMA’s 29th Annual Honors Convocation, Dr. Sean 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 of motivation, ingenuity, perseverance, and future success as a researcher of animal and human health problems.

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

At the CVMA’s 29th Annual Honors Convocation, Dr. Sean 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 of motivation, ingenuity, perseverance, and future success as a researcher of animal and human health problems.

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 of motivation, ingenuity, perseverance, and future success as a researcher of animal and human health problems.

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

At the CVMA’s 29th Annual Honors Convocation, Dr. Sean 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 of motivation, ingenuity, perseverance, and future success as a researcher of animal and human health problems.

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 of motivation, ingenuity, perseverance, and future success as a researcher of animal and human health problems.
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 guidance was also updated in April, but NIH representatives suggest using the guidance as a reference tool and not as a step-by-step set of instructions.

National Bio- and Agro-Defense Facility Site Visit Conducted

Officials from Kentucky and Tennessee met with the Department of Homeland Security site visit team April 23 at the proposed NBFAC location in Somerset, KY. The team finished conducting site visits in May, and they will choose a small number of potential sites to prepare an environmental impact statement.

The proposed consortium between the universities of Kentucky, Louisville, and Oak Ridge National Laboratory (ORNL) offers expertise in veterinary and animal sciences as well as in human medicine, with over 3,000 full-time research faculty.

The proposed facility itself would contain a 500,000 sq. ft. laboratory and other administrative and service buildings, with on-site fire protection and power generation (see conceptual plan at right).

Congressman Hal Rogers (R-KY) has cited strong industry and public support despite the presence of 20 protestors on the day of the visit. Comparisons are already being made between this facility (54.4 acres) and the initial development of ORNL, which was situated on 59,000 acres in a then-rural Tennessee and eventually urbanized an entire community.

In addition, Kentucky’s governor has pledged full support in road construction and other infrastructure needs, and the community has offered to deed the property at minimal cost to the government.

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.

Funding Deadlines Drawing Near

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Sponsor</th>
<th>Program</th>
<th>Therapeutic effect of horses on humans</th>
<th>$ Amount</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun. 30</td>
<td>Horses &amp; Human Foundation</td>
<td>TNFF</td>
<td>Up to 50,000 unlimited</td>
<td><a href="http://www.horsesandhumans.org/research">www.horsesandhumans.org/research</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 5</td>
<td>NIH</td>
<td>R01 renewals, revisions, &amp; resubmits</td>
<td>Varies</td>
<td><a href="http://www.nih.gov">www.nih.gov</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 16</td>
<td>NIH</td>
<td>R03, R21, R33, R34, R36 renewals, revisions, &amp; resubmits</td>
<td>Varies</td>
<td><a href="http://www.nih.gov">www.nih.gov</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 20</td>
<td>Winn Feline Foundation</td>
<td>Health issues affect cats</td>
<td>Up to 90,000</td>
<td><a href="http://www.winnfeline.com">www.winnfeline.com</a></td>
<td></td>
</tr>
<tr>
<td>Aug. 1</td>
<td>Planet Dog Foundation</td>
<td>Service animals &amp; animal-assisted therapy</td>
<td>5,000</td>
<td><a href="http://www.planetdog.org">www.planetdog.org</a></td>
<td></td>
</tr>
<tr>
<td>Aug. 10</td>
<td>Bernice Barbour Foundation</td>
<td>Preservation &amp; care of animals</td>
<td>Varies</td>
<td><a href="http://www.bernicebarbour.org">www.bernicebarbour.org</a></td>
<td></td>
</tr>
<tr>
<td>Ongoing</td>
<td>Lotte &amp; John Hecht Memorial Foundation</td>
<td>Alternative medicine &amp; cancer</td>
<td>Varies</td>
<td><a href="http://www.hecht.org">www.hecht.org</a></td>
<td></td>
</tr>
</tbody>
</table>

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

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

Dr. Michael Festing’s Web site is definitely worth a look for anyone about to design 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 | Up to 90,000 | www.winnfeline.com |

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

National Bio- and Agro-Defense Facility Site Visit Conducted

Officials from Kentucky and Tennessee met with the Department of Homeland Security site visit team April 23 at the proposed NBLAOF location in Somerset, KY. The team finished conducting site visits in May, and they will choose a small number of potential sites to prepare an environmental impact statement.

The proposed consortium between the universities of Tennessee, Kentucky, and Louisville, and Oak Ridge National Laboratory (ORNL) offers expertise in veterinary and animal sciences as well as in human medicine, with over 3,000 full-time research faculty.

The proposed facility itself would contain a 500,000 sq. ft. laboratory and other administrative and service buildings, with on-site fire protection and power generation (see conceptual plan at right).

Congressman Hal Rogers (R-KY) has cited strong industry and public support despite the presence of 930 protesters on the day of the visit. Comparisons are already being made between this facility (54.4 acres) and the initial development of ORNL., which was situated on 59,000 acres in a then-rural Tennessee and eventually urbanized an entire community.

In addition, Kentucky’s governor has pledged full support in road construction and other infrastructure needs, and the community has offered to deed the property at minimal cost to the government.

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.

Funding Deadlines Drawing Near

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Sponsor</th>
<th>Program</th>
<th>Therapeutic effect of hormones on humans</th>
<th>$Amount</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun. 30</td>
<td>Horses &amp; Humans Foundation</td>
<td>R01 renewals, revisions, &amp; resubmits</td>
<td>Up to 50,000</td>
<td><a href="http://www.horsesandhumans.org/research">www.horsesandhumans.org/research</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 5</td>
<td>NIH</td>
<td>R01 renewals, revisions, &amp; resubmits</td>
<td>Varies</td>
<td><a href="http://www.nih.gov">www.nih.gov</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 16</td>
<td>NIH</td>
<td>R03, R21, R33, R34, R36 renewals, revisions, &amp; resubmits</td>
<td>Varies</td>
<td><a href="http://www.nih.gov">www.nih.gov</a></td>
<td></td>
</tr>
<tr>
<td>Jul. 20</td>
<td>Winn Feline Foundation</td>
<td>Health issues affecting cats</td>
<td>Up to 90,000</td>
<td><a href="http://www.winnfelinehealth.org">www.winnfelinehealth.org</a></td>
<td></td>
</tr>
<tr>
<td>Aug. 1</td>
<td>Planet Dog</td>
<td>Service animals &amp; animal-assisted therapy</td>
<td>5,000</td>
<td><a href="http://www.planetdog.org">www.planetdog.org</a></td>
<td></td>
</tr>
<tr>
<td>Aug. 10</td>
<td>Bernice Barbour Foundation</td>
<td>Preservation &amp; care of animals</td>
<td>Varies</td>
<td><a href="http://www.bernicebarbour.org">www.bernicebarbour.org</a></td>
<td></td>
</tr>
<tr>
<td>Ongoing</td>
<td>Lotte &amp; John Hecht Memorial Foundation</td>
<td>Alternative medicine &amp; cancer</td>
<td>Varies</td>
<td><a href="http://www.hecht.org">www.hecht.org</a></td>
<td></td>
</tr>
</tbody>
</table>

Research Resource Spotlight

Isogenic.info Offers Animal Model Design Tips

Dr. Michael Festing’s Web site is definitely worth a look for anyone about to design research project that will include animal models. Much of what he advices 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


This bipartisan legislation was introduced last year and serves to update an antiquated patent system 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.

The goal is to enact the legislation by the end of 2007.

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

<table>
<thead>
<tr>
<th>Title</th>
<th>PI</th>
<th>Agency</th>
<th>Start</th>
<th>Type</th>
<th>S Amount</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>Influence of a high protein, low carbohydrate diet on urinary saturation 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>
</tr>
<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>
</tr>
<tr>
<td>Taxonomic inventory of endoparasites in Pigeon birds from the Great Smoky Mountains National Park</td>
<td>CT Faulkner</td>
<td>Discover Life in America, Inc.</td>
<td>4/1/07</td>
<td>1/1</td>
<td>3,465</td>
</tr>
<tr>
<td>Levothyroxine as a treatment for equine metabolic syndrome</td>
<td>N Frank</td>
<td>Lloy, Inc.</td>
<td>4/1/07</td>
<td>1/2</td>
<td>26,638</td>
</tr>
<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>SmartPak Equine</td>
<td>6/1/07</td>
<td>1/1</td>
<td>77,945</td>
</tr>
<tr>
<td>Effect of Sterilization towards the Improvement in the Prevention of Pyometra in female dogs</td>
<td>RC Harvey</td>
<td>Abbott Laboratories</td>
<td>6/1/07</td>
<td>1/1</td>
<td>12,500</td>
</tr>
<tr>
<td>Detection of coronavirus shedding in captive and wild-caught cheetahs in Southern Africa using real time PCR</td>
<td>MA Kentedy</td>
<td>Morris Animal Foundation</td>
<td>5/1/07</td>
<td>1/1</td>
<td>4,000</td>
</tr>
<tr>
<td>The role of the new zeta cleavage in ABeta formation</td>
<td>X Xu</td>
<td>NIH</td>
<td>5/1/07</td>
<td>1/5</td>
<td>29,250</td>
</tr>
</tbody>
</table>

A L e g e n d ,  R i s i n g  S t a r s ,  a n d  D i a m o n d s  i n  t h e  R o u g h

Dr. Alfred Legrende received the university’s highest faculty honor at the April 11 Chancellor’s Honors Banquet by being named Macabeer, 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. Legenderry,” as he affectionately known to some.

An honor for research and creative achievement went to Dr. Xuemin 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.

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 CV&M’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 Ziga 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 of motivation, inquiring mind, patience, and perseverance, and future success as a researcher of animal and human health problems.

Mark your Calendar
1st 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 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 associates, and veterinary students. The research office welcomes future collaboration and would like to hear from anyone interested in contributing to future symposiums.

*All events will take place in the Veterinary Teaching Hospital. See http://www.vet.utk.edu/research/researchday07.pdf for the full program of events.

Schedule
9:00-10:00
Welcoming Remarks (A118 VTH*)
10:15-12:00
Poster Sessions (1st floor hallway)
1:00-3:15
Oral Presentations (A117 & A118)
3:30-4:30
Closing Remarks & Awards (A118)

Phipps to Attend Meeting of Nobel Laureates in Germany
Doctoral student Jonathan Phipps 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 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.