

**Dr. August Battles**  
Attending Veterinarian  
Director of Animal Care Services

**Cristina Merricks**  
Editor



# ANIMAL CARE SERVICES NEWSLETTER

Health Science Center  
Communicore CB-159  
P.O. Box 100006  
Gainesville, FL 32610-0006  
Telephone: 352-392-2977  
Fax: 352-392-3766

Volume 6, Issue 3

December 2006

## Improving Health Surveillance Programs

ACS lab personnel have been testing the accuracy, time- and cost-effectiveness of in-house ELISA (enzyme linked immunosorbent assay). The test is administered to ensure the routine health monitoring of our mouse and rat colonies. Experimentation and data analysis were done in 2003 while Dr. Bernadette Zamora was a resident at UCLA. *Improving Health*



*Surveillance Programs with the Help of On-site Enzyme-linked Immunosorbent Assay* is found in the July 2006 edition of the Journal of the American Association for Laboratory Animal Science (JAALAS). The abstract from the article is as follows:

Timely and accurate detection of murine pathogens is essential in contemporary biomedical research. Cost, accuracy, and reproducibility of test results are frequent concerns when initiating an on-site serology program. This study was conducted to evaluate the advantages of on-site serology performed by enzyme-linked immunosorbent assay (ELISA) versus pathogen surveillance conducted off-site by a commercial vendor. We divided 92 sentinel mouse serum samples and tested them in parallel for a panel of 10 murine pathogens at our institution and by an off-site vendor. On-site testing was performed with commercially available test kits and according to the kit manufacturer's directions, whereas serum samples for off-site testing were prepared according to the vendor's specifications. Results from the 2 testing strategies were compared, and a good beyond-chance level of agreement was demonstrated by means of the kappa test ( $k=0.86$ ). The turn-around time between sample preparation and results availability for on-site ELISA was 16 h versus 72 h for off-site testing. On-site ELISA demonstrated considerable cost reduction, ranging from 15.10% to 43.33% depending on the number of agents being tested. This study

demonstrates the accuracy and time- and cost-effectiveness of on-site ELISA as well as its potentially valuable role in achieving more timely and efficient disease surveillance and control programs in contemporary biomedical research facilities."

## Staff Recognitions

The year 2006 is wrapping up as one of the most successful years for ACS employees. James "Danny" Johnson, RALAT, was selected to represent the Florida American Association for Laboratory Animal Science (FAALAS) at National AALAS as the Technician Branch Representative (TBR). Danny, who works at the McKnight Brain Institute facility, is the direct link between national AALAS and the state branch of AALAS. He is responsible for ensuring the information from the national organization is distributed to members across Florida and serves as the Branch voice. Although this commitment requires the donation of volunteer hours during his off time, Danny is looking forward to serving the FAALAS membership.

Congratulations are in order to our latest AALAS-certified staff members! There are three certification levels for AALAS, ALAT (Assistant Laboratory Animal Technician), LAT (Laboratory Animal Technician), and LATG (Laboratory Animal Technologist). As this is available to all who work in Lab Animal Science, ACS encourages those qualified to expand their education in their field and grab hold of the opportunity for advancement and recognition of their ability. In addition, ACS offers a financial or promotional benefit to staff members. For more information on reaping these benefits, please contact Charlie Mason at 352-392-9536.

The number of ACS staff gaining AALAS certification continues to steadily increase. Those recently certified include Stacey Robinson, LAT, who works in the front office as Program Assistant, Katherine Jones, LAT, who holds down the fort as the Progress Park's shipping and receiving

coordinator and veterinary care technician, Blanca Carbia, RLAT, who is the lab technician supervisor at Progress Park, and Anita Hancock, RALAT, who works with the kitties at BARC. Also in the line-up is David Miller, LAT, who transitioned into a vet tech from his former husbandry role. He explained that the certification along with his BS in animal sciences, have played a significant role in preparing him for veterinary care and has increased his knowledge and understanding of the animal research world.

Along these commemorative lines, Santa Fe Community College honored two members on our team with AA degrees. In April, Kevin Chadbourne, RLAT, who works in the Large Animal Section, received his AA degree in Zoology. David Deal, who works at the Farm, earned his AA degree in Biological Sciences in August.

## Animal Technician Lab Products Award Recipient

After carefully reviewing a significant number of exceptional nomination letters, Lab Products had the difficult task of recognizing one deserving technician from each of the 8 AALAS districts and Canada whose hard work and dedication significantly contributed to the field of Laboratory



Animal Science. Among the nominees, and the recipient of the 2006 Lab Products Animal Technician Travel Award for AALAS District 4 was our very own Alexis Manning. In October, Alexis was presented a commemorative plaque (accepted by Luis Zorrilla) acknowledging

her accomplishment at the 2006 National AALAS Meeting in Salt Lake City, Utah.

In addition, the fringe benefits granted consisted of a round trip airfare to Salt Lake City, lodging at the prestigious Radisson Hotel, dinner at the social event honoring the recipients, the attendee's first National AALAS Meeting registration fee, cash to cover incidentals, and one year's membership to AALAS.

Alexis, ALAT, who currently works at the Cancer-Genetics Research Center, was described by those nominating her as a caring technician who recognizes the importance of her job continually seeking knowledge of different studies to broaden her repertoire.

## Staffing Announcements

- ❖ Patricia Misita, BA, a.k.a. "Pat" is our new loading dock manager. Having published an article in the January 1993 issue of Lab Animal magazine, this author has dipped her feet in the areas of Toxicology, Biotechnology, and Histology. "Pattycake", as the kids love to call her, is also a certified Clown for children's parties. Please note that this holds no truth to the accusation that ACS is running a circus. We just know how to have fun! Pat can be reached at 352-392-9430 or you can email her at [pmisita@ufl.edu](mailto:pmisita@ufl.edu).
- ❖ Robert Haynes has joined forces with Ryan Fiske at the Cancer-Genetics Animal Research facility. Although he escaped Maine's bitter winter chill to bask in the Florida heat, he has discovered how confusing the Gator nation's weather truly is. Nonetheless, his experience in working as Rodent Colony Manager of Animal Care's Breeding Services has lessened the blow. He is single and still looking for the right person to partake in his traveling ventures. Rob can be reached at 352-273-8323 or via email at [rhaynes@ufl.edu](mailto:rhaynes@ufl.edu).
- ❖ Juan Jordan is the newest member to the Veterinarian Squad. He studied in Grenada and is originally from Puerto Rico. He will be working with the USDA-covered species and will attempt to fill in gaps wherever his services are needed. He can be reached at 352-392-0984 or via email at [jordanj@ufl.edu](mailto:jordanj@ufl.edu).

## Pinworm Outbreak Update

The pinworm infection in the Communicore building, McKnight Brain Institute and the Pharmacology building appears to be under control. All rooms that were found to be positive in August and September were treated for pinworms and tests from a representative group of rats in the rooms, including the sentinels, was negative for pinworms last month. The quarantine restrictions were lifted from the McKnight Brain Institute colony after 2 negative tests, two weeks apart. Communicore and Pharmacology are due to have their second test this month. After a second negative test, the rat rooms will no longer be under quarantine for the pinworms, but the rats still harbor the rat parvovirus. The rooms with the rat parvoviruses will remain under quarantine until the rats are eliminated from the rooms. Increased

surveillance of the rats in all of the rodent colonies will continue for a few months to verify that the infection has been eliminated.

The pinworm infection in the Psychology building has not been resolved. Some of the rats in the Psychology animal colony can not receive the standard oral medications used to treat pinworms, due to the possible interference with their experimental protocol. The rats were treated with an injectable anthelmintic that was shown to be effective in previous publications. The pinworms appear to be resistant to this treatment and alternative treatments are underway at this time.



It is very important not to travel from the Psychology animal colony to any other rodent colony on campus. The pinworms are highly infectious and can re-infect the clean colonies

with any traffic from Psychology to other rodents.

#### **A few facts about rat pinworms:**

*Syphacia muris*: Life cycle is 11-15 days. Eggs become infective in about 6 hours. After ingestion, eggs hatch in the small intestines. Larvae reach the cecum in 24 hours, mature in 10–11 days and begin laying eggs. The adults occur primarily in the cecum and colon of infected hosts. Eggs are deposited in the perianal area of the host, from which they are efficiently disseminated into the cage and room environments. The eggs can survive for weeks under most animal room conditions. *Syphacia obvelata* (mouse pinworm), have been reported to occur in people, but it has no known public health significance (Flynn, 1973; Wightman et al., 1978; Ross et al., 1980; Wescott 1982).

**Treatment:** Because eggs live in the environment for “weeks,” the rodents in the colony must be treated for a minimum of 8 weeks to kill any newly ingested eggs. Fenbendazole requires 3 days of continuous treatment to kill the worms. Ivermectin and Piperazine kill the worms with one dosage.

## **ACS Breeding Services**

In February 2007, ACS Breeding Services will begin offering common inbred strains to its investigators. Strains will include The Charles River and Jax C57BL/6, as well as the Jax BALB/c, FVB/N, and C3H/HeJ. Various strains may be bred upon request. If you would like to take advantage of this offer and need a monthly dedicated supply of

animals, please state the request by e-mailing Ryan Fiske at [rfiske@ufl.edu](mailto:rfiske@ufl.edu), to ensure mice are bred accordingly. Prices have yet to be determined, but will be the same or less than that of the vendors incurring no additional shipping costs. ACS breeding services will purchase new breeding stock from the vendors every 6-12 months to guarantee genetic equality.

ACS staff has constructed a universal breeding protocol that will cover all breeding and related activities listed on the tier pricing sheet as demonstrated on the ACS website at [http://my.acs.ufl.edu/breeding\\_perdiems.pdf](http://my.acs.ufl.edu/breeding_perdiems.pdf).

Members may elect to transfer their strains to this protocol thus avoiding the need to write breeding protocols and breeding amendments of their own. The animals will remain in our breeding suite under our protocol. Once you are ready to receive your research animals, they will be transferred out of our suite and back on to your experimental protocols.

Some research projects may not fit into one of our 5 tiers. For instance, an Investigator may want the alpha-dri bedding, but will not need bleeding or SQ injections done or vice versa. To better comply with your individual needs, modifications to the pricing of the tier structures can be made.

If you are interested in having your mouse or rat colonies transferred to the breeding program or if you should require more information, please arrange a time to meet with Ryan Fiske by contacting him via email at [rfiske@ufl.edu](mailto:rfiske@ufl.edu) or Robert Haynes at [rhaynes@ufl.edu](mailto:rhaynes@ufl.edu). With more than 16 years of colony management experience, you can be assured your animals and research is in good hands.

## **Laboratory Equipment Expansion**

Clinicians and Investigators need not go far looking for a laboratory to help them assess their animals' health. In keeping with the commitment to provide only the highest standards of laboratory animal care to the teaching and research community, Animal Care Services has recently purchased a state-of-the-art clinical chemistry analyzer and a hematology unit that can be programmed to measure the blood counts of 27 different animal species including



ACS' new Hemavet Hematology Unit

mice, rats, dogs, cats, sheep, non-human primates, rabbits, etc. For sample testing arrangements and fee schedules, please call the laboratory directly at 352-846-1383 or contact Linda Thomas via email at [lthom@ufl.edu](mailto:lthom@ufl.edu) or Dr. Bernadette Zamora at [bzamora@ufl.edu](mailto:bzamora@ufl.edu).

## Diagnostic Laboratory Services

The ACS diagnostic laboratory staff are maintaining busy by performing complete blood counts (CBC) and clinical chemistry tests free of charge as a part of the routine health surveillance that are administered for different animal species on campus. These tests are available to the investigators for research-related experiments for a fee. An appointment with the ACS laboratory staff (Dr. Bernadette Zamora or Linda Thomas) will need to be made prior to services being rendered. They may be contacted at 352-846-1383 or via email at [bzamora@ufl.edu](mailto:bzamora@ufl.edu) or [lthom@ufl.edu](mailto:lthom@ufl.edu).

## CGRC Update

Since getting the green light to occupy in October, relocation attempts to the Cancer-Genetics Research Complex have been successful. Although there is a respectable cage census of over 2600+ cages in the husbandry area, the numbers are still shy of the 15,000+ capacity the area is capable of holding. If you would like to transfer your animals to CGRC, please note that a transfer request must be submitted to the ACS main office.

### **Reminders for current and future CGRC users:**

Access to the building is gained by using a Gator 1 card and UFID number. Please make sure you have a newer, compatible card for building access before you actually need access. In addition to previous requirements, users must complete blackboard (on-line) training specific for the CGRC facility and a practicum tour of the facility.

Once the requirements are completed, access to the animal facility and animal holding suites is attained by palm readers to the front (locker room) and back (for carcass disposal) entries and to specific suites where your animals are housed. Please remember that the locker/bath room entries are sex specific: men should only enter and exit through the men's locker room and vice versa. For any questions regarding



access, please contact Greg Tyler, building manager, at 352-273-8263. If you should require any additional information, feel free to contact Bob Gump at 352-273-8265 or via email at [rgump@ufl.edu](mailto:rgump@ufl.edu).

## Government/Legislative Update

In the December 2006 edition of *Laboratory Animal Practitioner* mice DNA and an Animal Welfare act service report are highlighted. The following are excerpts from the Volume 39, No. 4:

### **DNA of 15 Mouse Strains Resequenced (From the NIEHS Press Release, dated Oct. 25, 2006).**

Researchers have successfully resequenced the DNA of 15 mouse strains most commonly used in biomedical research, based on single nucleotide polymorphisms (SNPs). More than 8.3 million SNPs were discovered among the genomes of the 15 strains. The data is now publicly available at the National Center for Biotechnology Information website at <http://www.ncbi.nlm.nih.gov/SNP/>. Mouse strains included in the resequencing project are the 129S1/SvImJ, A/J, AKR/J, BALB/cByJ, BTBR T+tf/J, C3H/HeJ, CAST/EiJ, DBA/2J, FVB/NJ, MOLF/EiJ, KK/H1J, NOD/LtJ, NZW/LacJ, PWD/PhJ, and WSB/EiJ. The fifteen strains were chosen because of their routine use as research models and their genetic diversity.

### **New Congressional Research Service Report on the Animal Welfare Act (Excerpted from the NABR Update, Vol. 27 (25), dated Aug.17, 2006).**

The Library of Congress' Congressional Research Service (CRS) has issued an updated report synthesizing the Animal Welfare Act. The report is a good summary of the Act's key provisions and legislative history, and provides background on pieces of legislation that have sought to amend the Act over the years, including currently pending legislation such as the Pet Safety and Protection Act. A copy of the report can be downloaded from <http://www.nabr.org/pdf/CRSreport.pdf>.

## GLP Preclinical Study Helps Make Strides in Treating Heart Failure

In August 2006, ACS was graced with the highest level of quality research. The NIH funded, GLP (Good Laboratory Practices) study is underway in the pursuit of better understanding the inner workings of the human heart. A recombinant Adeno-virus is used to transport the Adenylyl

Cyclase VI gene to treat congestive heart failure. Being the closest animals that embody human qualities and similar cardiac structure and function, full-sized farm pigs are utilized to replicate the expected procedure to take place in human subjects during clinical trials.

As the study director, Dr. Thomas Conlon has his plate full coordinating all aspects of the project while ensuring that all personnel adhere to SOPs (Standard Operating Procedures), reviewing incident reports, and constructing final reports that are sent to the FDA (Food and Drug Administration) for approval to move forward into a Phase I clinical trial.

Supported by the National Gene Vector Laboratory (NGVL), it is the first large animal study the Powell Gene Therapy Center has had at UF, Conlon proudly stated while emphasizing the importance and key role ACS staff have played in its success. In preparation for the mission, equipment was calibrated, rooms were retro-fitted to hold study specific caging, and training sessions were administered to assure the QA system and SOPs were adhered to as developed by Charlie Mason, Dr. Janlee Jensen and staff.

ACS' Dr. Janlee Jensen is the DVM responsible of taking care of the pigs. The three hour procedure that injects the vector into the subject's three coronary arteries using a catheter system through the Coratid Artery demands the skill and talent only the dynamic group consisting of Whitney Hartz, ACS Surgery manager, Kevin Christman, and Shannon Leach can provide. Other vital members include Kevin Chadbourne of ACS and Holly Cossette from the Toxicology Core who take care of the research animals, ACS' clinical lab (Dr. Bernadette Zamora and Linda Thomas) preparing

blood samples, Barry Byrne serving as the Principal Investigator, and Corinne Abernathy from Quality Assurance ensuring the research quality.

Over 200 people are involved in the Pre-clinical/Toxicology project as demonstrated below:



1: University of California San Diego, Principal investigator of the clinical trial. 2: University of Indiana, home of the sponsor, National Gene Vector Laboratories. 3: FDA, home of the Center for Biologics Evaluation and Research. 4: Palmetto Swine, producers of GLP swine. 5: Southern Research Institute conducts blood chemistries and PCR. 6: Cornell Gene Therapy Core, vector production. 7: University of Florida, Powell Gene Therapy Center Toxicology Core and Quality Assurance Unit; Department of Pathology, Molecular Pathology Core; Department of Pediatrics, Cath Lab; College of Veterinary Medicine, Department of Pathobiology

### In Loving Memory



Georgette Duffy Dee passed away suddenly at her home. Her memorial service was held at the Holy Cross Lutheran Church in South Daytona on 19 November 2006. She is survived by her parents, a brother, sister, daughter, and grandchildren. Ms. Dee was a long term ACS

employee of our facilities and will be missed.

## Good Luck at the Tostitos BCS National Championship Game, Gators!



Animal Care Services (ACS) publishes this newsletter to communicate with those who use or provide support to the animal care program at the University of Florida. This newsletter contains various items of importance to animal users. We use e-mail as our primary method of distributing the newsletter, but also have copies available in the animal facilities. Please print this newsletter and distribute it to members of your department. If you did not receive this newsletter by email and would like to be added to the email list, please send an email message to [cmerrick@vpha.health.ufl.edu](mailto:cmerrick@vpha.health.ufl.edu) with "Add to ACS Newsletter" as the subject. This and all past issues of the newsletter can be accessed at <http://acs.ufl.edu/newsletter.shtml>.