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ANIMAL CARE SERVICES NEWSLETTER

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Mouse Models Core Update

The UF **ACS Mouse Models Core (MMC)** has created numerous new transgenic lines, as well as new knockout mice over the past two years. At this point, transgenic mice can be created on a variety of backgrounds, and knockouts can be produced on a 129 or B6 background, depending on the ES cells used.

The Core also has begun to provide ancillary services to facilitate UF investigators' outside collaborations, colony archiving, and colony rescue. To this point, we regularly offer preimplantation embryo collection, mouse line reconstitution from frozen embryos or sperm, archiving mouse lines by embryo and sperm cryopreservation, and embryo transfer rederivation of disease-carrying mouse lines. ACS can now store all or a portion of researcher's frozen mouse embryos and sperm in its own autofill, alarmed liquid nitrogen storage tank!

Another service that we are currently developing is colony rescue via ovary transplantation. We have successfully rescued a number of researcher's most important mouse lines via IVF!

Request forms for any of these services can be found on the web at:

<http://acs.ufl.edu/MouseModelCore/index.shtml>

Fees for any of these services can be found on the web in MyACS upon logging in, and looking under "Breeding Services."

Opening Fall 2009



Biomedical Sciences Building

The final phases of construction for the new Biomedical Sciences Building are underway and we are preparing for October 30, 2009 as a start date for the move into this new facility.

Please check back to our website and future newsletter for more details and information as it becomes available.

If you would like a tour of our new facility please contact our office at (352) 392-2978.



Special Services Charges

Animal Care Services (ACS) is in the process of implementing “Special Services” charges. This is necessary because ACS is not permitted to incur non-reimbursed expenses associated with individual protocols. Standard per diem charges are calculated based on only routine standard husbandry care and veterinary medical health surveillance. Deviation from routine husbandry care of animals that create a demand for excess materials or manpower will incur Special Services fees to compensate ACS. Fees associated with common or basic Special Services can be found on the myACS website. Fees associated with non-standard Special Services will be calculated by ACS staff and discussed with the PI before services are initiated.

Husbandry Special Services- Any services provided by ACS personnel for the husbandry of animals which are beyond what is prescribed in the Standard Operating Procedures (SOP) that addresses standard housing and husbandry care for that animal species, i.e. non standard housing, excess or alternative bedding, toys, specialized diets or non-standard feeding schedules, or extra man-hours incurred for the performance of minor research specific tasks for the convenience of the PI. These costs must be reimbursed by the individual PI/protocol. Husbandry Special Services charges may also be the result of unique physiology or behavior of individual animals. For example, diabetic rodents frequently demand cage changes much more frequently than non-diabetic animals.

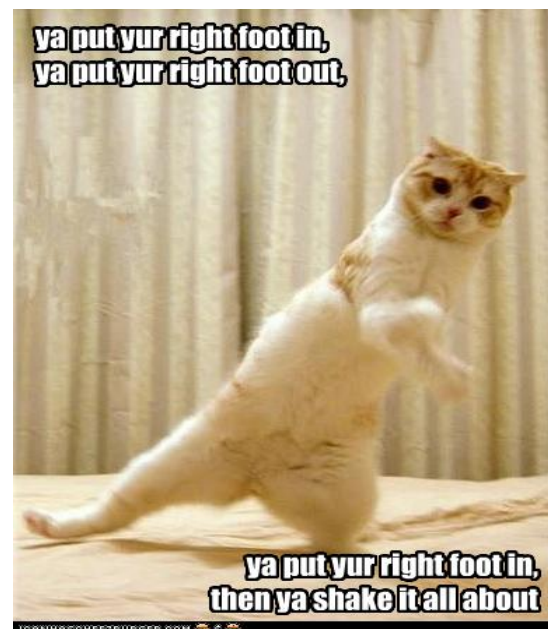
Veterinary Care Special Services (Protocol Support) - Any technical or professional services provided by ACS personnel for research associated activities involving UF research animals which are not covered by standard per diem charges. These may include collection of biological specimens,

administration of test materials, clinical observation of objective physiological data, i.e. vital signs, observations or measurements, laboratory tests, body weight, or temperature determinations, data recording and or consolidation, etc.

Equipment Special Services- Any loan/use of ACS-owned equipment for research associated activities involving UF research animals which are not covered by standard per diem charges. This includes inhalation anesthetic machine use, vaporized hydrogen peroxide generator use, cleaning of non-ACS equipment such as investigator metabolic cage systems and incineration of large animal carcasses, cleaning and sanitizing non-ACS equipment, etc.

Veterinary Medical Care- Medications, special diets or non-standard feeding schedules, and ACS personnel time expanded to diagnose or to care for sick or injured animals may also incur additional charges. These are not components of standard husbandry and health surveillance; which are covered by UF per diem charges. These Special Services arise out of an ACS veterinarian’s assessment, diagnosis, and treatment plan.

The Lighter Side



Congratulations

Dr. Maggie Struck is the newest Clinical Veterinarian on staff at ACS. Dr. Struck completed her Laboratory Animal Medicine Residency with ACS at the end of June and moved into her new position as Clinical Veterinarian in July. Congratulations Dr. Struck!!



Dr. Maggie Struck

helped develop the wonderful staff that we have today, and we are very grateful to Greg for all that he has done. Before joining the University of Florida community, Greg had attained the rank of Captain in the Vietnam conflict. He now looks forward to spending time spoiling his grandchildren, playing with his adorable black lab Charlie, and traveling with his wife Marcia. Congratulations Greg!!



Greg Marwede with Charlie

Farewells

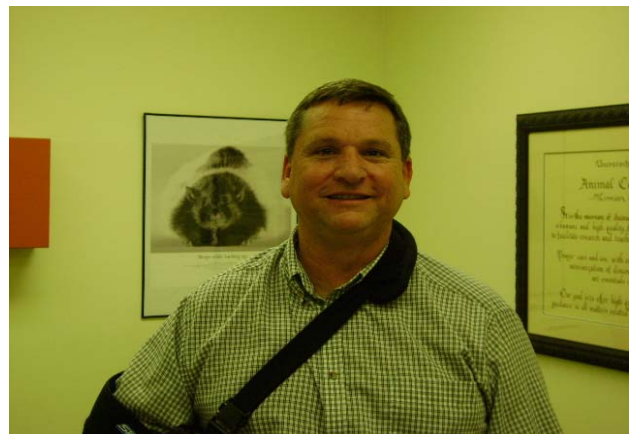
Sandy Williams, Diagnostic Lab Technician recently retired from ACS in July 2009. Sandy worked for ACS for over 12 years and came to UF from The University of Alabama at Birmingham. Sandy now plans to spend time with her family and travel. Enjoy retirement Sandy!!



Sandy Williams

Dr. Juan Jordan recently left the University of Florida after completing his Laboratory Animal Medicine residency. He is now working for Arizona State University as a Clinical Veterinarian. Good luck Juan!

Bob Gump, Facility Coordinator who managed the HSC Rodents and Pathology Facilities has also left our staff to pursue a new position at Walter Reed in Bethesda, MD. In his new position he will be the program manager for the animal research facilities. We wish him the very best of luck!!



Bob Gump

Greg Marwede will also be retiring in November 2009. Greg has been the Human Resources Manager for ACS since 2002, and with the University for 29 years. He joined ACS following 22 years with the Division of Human Resources on campus. His years of experience have

ACS Standard of Care

A frequently asked question is “Doesn’t my mouse or rat’s per diem cover that?” The answer to that question depends as to what is being asked for. There is a standard of care for mice and rats that the animal’s per diem covers:

Mice: Cage Change Frequency

	Solid Bottom Cage		Wire Bottom Cage	Water Bottle
	Ventilated Rack	Conventional		
1 Mouse	1x every two weeks	1x per week	1x every 2 weeks	1x per week
Multiple Mice	1x every two weeks	2x per week	1x every 2 weeks	1x per week

The standard mouse cage is a 75 square inch caged filled with 1/8” corn cob bedding filled to approximately ¼” depth. Biocontainment mouse cages are 67 square inches. Ventilated caging uses automatic watering except in facilities not equipped with automatic watering. Except for nude mice all cages will be provided a Nestlet for environmental enrichment; nude mice will receive a compressed paper shack. The mice are fed a pelleted diet Harlan 7912, 8604 (non-barrier animals only) or Purina 5001. Breeding animals will be fed an irradiated high protein diet Harlan 8664 or Purina 5058. Barrier maintained animals will receive sterilized caging and irradiated food. Additional bedding, alternative bedding, and alternative diets can be provided at an additional cost. Cages requiring increased cage changes will incur special cage change charges.

A sentinel surveillance program covers mice except for infectious disease animals. Routine veterinary colony checks are included in the per diem.

Rats: Cage Change Frequency

	Solid Bottom Cage		Wire Bottom Cage	Water Bottle
	Ventilated Rack	Conventional		
1 Rat	1x every two weeks	1x per week	1x every 2 weeks	1x per week
Multiple Rats	1x per week	2x per week	1x every 2 weeks	2x per week

The standard rat cage is a 140 square inch cage filled with 1/8” corn cob bedding filled to approximately ¼” depth. Ventilated caging uses automatic watering except in facilities not equipped with automatic watering. Singly housed rats will be provided a Nylabone for environmental enrichment. Rats are fed a pelleted diet Harlan 7912, 8604 (non-barrier animals only) or Purina 5001. Breeding animals will be fed an irradiated, high protein diet Harlan 8664 or Purina 5058. Barrier maintained animals will receive sterilized caging and irradiated food. Additional bedding, alternative bedding, and alternative diets can be provided at an additional cost. Cages requiring increased cage changes will incur special cage change charges.

A sentinel surveillance program covers rats except for infectious disease animals. Routine veterinary colony checks are included in the per diem.

What the per diem doesn’t cover are items outside the standard of care: increased quantity of bedding, alternate bedding, alternate diets, increased cage change levels, ACS performing PI purple sheet tasks on weekends and holidays, etc. These items are available to the labs if required but at an additional cost to the lab.

Another frequently asked question is “Why do I have to pay extra for this?” In an effort to contain an across-the-board per diem increase for all mouse and rat users, it was decided that only the labs that require additional supplies and services should pay for them. This is meant to ensure that your research funds are spent on your research, not someone else’s.

If your lab has any questions please feel free to contact Mike Riley at 392-9210

2009 Animal Technician Award

Ms. Heather Rocha, OPS Veterinary Care Technician, was selected by Lab Products, Inc. as the 2009 American Association for Laboratory Animal Science (AALAS) District 4 Technician of the Year. She competed against nominees from the Southeast US and Puerto Rico. She receives roundtrip airfare, registration, and hotel accommodations at the 2009 AALAS National Meeting in Denver. For the third time since 2006 a UF technician has won this prestigious award.

Heather began her work with our department as an OPS (non-benefited/student) part time veterinary technician in October 2005. Heather quickly became a very reliable a part of the vet staff and soon outshined the other student techs that held her position prior. She is now instrumental in training our new student technicians for the challenges of working weekends and holidays alone and has done an amazing job.



(L-R) Lauren Schleenbaker and Heather Rocha

Heather is a very organized, dedicated, valuable member of our team. Heather's impressive initiative and reliability has earned her more responsibility than most other student vet techs. She now works full time alongside the other licensed veterinary technicians, as an irreplaceable part of our veterinary staff. Her level of care and attention to the animal's condition and welfare provides a great example for everyone. In addition she is always interested in learning more. Heather has now

taken on the difficult challenge of returning to school to pursue her degree in veterinary technology while still working full time and we are all very proud of her. She is currently enrolled in St. Petersburg Veterinary Technology program and doing a great job at balancing her job and school work. And if that wasn't enough she is also fostering 2 abandoned kittens on her own time.

FAALAS Technician of the Year

Ms. Lauren Schleenbaker, Senior Veterinary Care Technician, was selected as the 2009 Florida Branch, American Association for Laboratory Animal Science (FAALAS) Technician of the Year. Her experience as a husbandry tech, veterinary tech, and research tech is a unique skill set that is proving invaluable. This experience and veterinary knowledge allows her to communicate effectively between veterinary, research, and husbandry staff at the working level. She is able to provide a personable service to the researchers while increasing the veterinary oversight within our colonies which has had a positive effect on animal welfare.

She works well independently and is relied on to ensure that clinical care is carried out throughout the facilities as the veterinarians directed. My Assistant Director of Operations describes Lauren as the "Gold Standard" of veterinary/husbandry interaction. When she goes into a facility she talks to the husbandry techs about their animals, does her tasks and checks, and then talks to the husbandry staff again about what she observed, what she did, and what they need to be looking for to help care for their animals. She understands the bonds between the husbandry technicians and the animals they care for.

This is the seventh straight year that an Animal Care Services technician has been selected as a FAALAS Technician of the Year.



Verification of Sanitization

What does that mean?

All of the equipment, caging and even the walls and floors in the animal rooms maintained by Animal Care Services (ACS) are sanitized on a regular basis. Several tests are employed to verify that the cleaning methods are effective and that they remove the normal organic material that accumulates on the equipment and in the rooms. Bacterial cultures are obtained from recently cleaned walls, floors, and cages. Biological indicators are used to verify the proper functioning of autoclaves. The testing, to verify the sanitization procedures, is required by regulations governing the use of animals in research.

Testing is also required to verify the same level of sanitization, for all equipment and rooms that are maintained by the investigators instead of ACS. In conjunction with ACS, the IACUC has determined that a bacterial culture of recently cleaned items done once every 6 months is adequate to verify sanitization procedures. Each investigator's laboratory using animals in research and maintaining their own equipment and or rooms must have a sanitization SOP and test their sanitization methods and maintain the results to provide to the IACUC during inspections. The specifics for the tests may be found on the ACS website or by calling the ACS diagnostic laboratory at 352-846-1383 or sending an e-mail to Linda Thomas lthom@ufl.edu or Dr. Bernadette Zamora at bzamora@ufl.edu

Attention Rodent Anesthesia Machine Users

ACS has several Rodent Anesthesia machines available for PI use in many facilities including HSC, CGRC, and the new BMS building.

Starting **October 2009** - ACS will begin charging for the use of all rodent anesthesia machines. Rodent Anesthesia Machines can be rented by the hour or by the day (see myACS fee schedule for current charges).

In order to use or reserve a Rodent Anesthesia Machine contact your ACS Area Supervisor/Manager during normal business hours. <http://acs.ufl.edu/staff.shtml>

Also see Rodent Anesthesia Instruction ([link to instructions on web](#)). To request one- on- one training on the proper use of rodent anesthesia machines you may contact the vet tech office @ 846-0984.

*Note - PI's are still responsible for providing their own Isoflurane

Welcome

Please join us in welcoming our new residents **Dr. Ignacio Aguirre** and **Dr. Maria von Chamier**! Our new residents began with Animal Care Services in early July 2009 and will be here with us for three years.

For our newsletter we asked each resident to introduce themselves and give a short summary of how they became interested in Laboratory Animal Medicine.

Dr. Ignacio Aguirre:

"It was not until recently, when I deeply realized that comparative medicine is the veterinary specialty that would allow me to blend all my professional interests and passions: laboratory animals, pathology and research. It was then when I recognized my need to apply for a comparative pathology training program. My long term career goal is focused on the development of an academic career in the area of comparative medicine, in particular in comparative pathology. I have a specific interest in laboratory animal research and also in the ethical principles for their use. I'm also very interested in teaching and interacting with students. Therefore, I consider my vocation: academic laboratory animal pathology and research."



Dr. Ignacio Aguirre (L) and Dr. Maria von Chamier (R)

Dr. Maria von Chamier:

"I am a new graduate from the UF CVM. My veterinary interests during vet school included public health, infectious disease control, population medicine, pathology, and working with multiple species. It was important to me to enter an underserved area of veterinary medicine. The veterinarians here at ACS first introduced me to Laboratory Animal Medicine, and I can't imagine a better fit for me. I look forward to watching the developments in biomedical research that occur during my residency at UF, and to being of any assistance that I can to everyone here."

2009 FAALAS Meeting

UF ACS hosted the 2009 Florida Branch AALAS (FAALAS) meeting July 25th at the IFAS Animal Science Building. With tough economic times, we hoped to get 40 – 50 in attendance and were happily surprised to have over 80 in attendance with facilities from Miami to Jacksonville. Several topics were covered; earning CEUs for attendees, of note was a keynote presentation by the dynamic UF Veterinary Forensics expert Dr. Jason Byrd, who actually consults for the popular TV show CSI. He also spoke on a new program, sponsored by the ASPCA, providing mobile units to investigate animal cruelty cases. We had a great BBQ lunch thanks to UCF's Bob Banks, a fun animal care jeopardy challenge game hosted by Mike "Alec T" Riley, then a working/search dog demo by Sherry Scruggs. We also had presentations by Ryan Fiske, Charlie Mason, Paula Cannella, Stephanie Frank & James Johnson, Richard Carter and facility updates by Mike Riley (Gainesville), Faith Conkle (Jacksonville), Una Owens (Tampa), Teri Kirsh (Orlando) and Tom Beatty

(Miami). A good time and learning experience was had by all.

Please watch for next years' meeting in Tampa hosted by USF and 2011 will be in Orlando hosted by Burnham Inst. All are welcome to participate and welcome to be members of our Florida AALAS branch.



Mr. Mike "Alec T" Riley



FAALAS Meeting Attendees watching the Search and Rescue Demonstration lead by Sherry Scruggs

FAALAS Officers

Mr. James "Danny" Johnson has completed his three year stint as the Technician Branch Representative for the Florida Branch, American Association for Laboratory Animal Science (FAALAS). This position serves as the FAALAS technician representative to the national AALAS. **Stephanie Frank**, Shipping & Receiving Veterinary Care Technician will be stepping into this position as an alternate to represent the branch's technicians. She has been selected to attend the 2009 AALAS Leadership Academy at the AALAS National Meeting in Denver.

Acceptable CO2 Euthanasia Chambers

Carbon dioxide (CO₂) is a safe and humane method of euthanasia that is a preferred technique for use with adult rodents. It can be administered using fairly simple equipment that can be located anywhere in a facility or fixed to a mobile platform for portable use.

Use of a compressed gas cylinder is the only approved method to administer CO₂ and should always include an appropriate two-stage regulator. Since carbon dioxide is 50 percent heavier than air, chambers should be designed so that they fill rapidly with gas from **bottom to top**. This allows the air to exit at the top and be completely replaced by carbon dioxide. Lethal levels of carbon dioxide are then easily maintained with a minimum of additional gas. Incomplete filling of a chamber may permit tall or climbing animals to avoid exposure to an optimal concentration of gas, which can lead to prolonged distress to the animals.

Examples of acceptable chambers:

1. Various commercially-available or customized glass, Plexiglas, or other hard plastic container may serve as a euthanasia chamber. To assure bottom-to-top filling, the gas should enter either through a port located at the bottom of the chamber or through tubing which enters at the top and extends down into the chamber at least 3/4 of the way.
2. Commercially-available tops are available to euthanize animals inside plastic rodent cages. These tops seal the enclosure and create inlet/outlet holes that can be connected to the supply of CO₂. The simplest functional system is one that has a single hole through which a length of tubing connected to the regulator passes. The tubing may extend

down to the bottom of the chamber. This system allows gas to enter the chamber while air is vented out through the small opening around the tubing at the top.

3. A large plastic or glass dessicator jar can be used if a two-holed rubber stopper is inserted in the top. The hose from a CO₂ regulator is connected to a six-to-eight-inch piece of rigid plastic or stainless steel tubing that passes through one hole of the stopper and allows the carbon dioxide to be admitted at the bottom of the chamber. A three-inch piece of plastic tubing is passed through the other hole and is connected to a short length of hose which has an adjustable screw-type clamp placed to regulate the escape of air and carbon dioxide from the chamber. Before administering gas, the ground glass surfaces should be sealed with silicone grease.

Please contact ACS if you have any questions about whether your chamber is acceptable. An ACS veterinarian will gladly visit the lab and offer a consultation.

Chambers should be kept clean to minimize odors that might distress animals subsequently euthanized. Chambers may be lined with clean disposable materials to enhance sanitation. Disposable liners should be removed and sanitization and rinsing should occur between animals or groups of animals and when all euthanasia is completed for the day.

For details on specific methods of euthanasia, please see <http://acs.ufl.edu/guidelines/Euthanasia.shtml> and <http://www.iacuc.ufl.edu/Changes%20made%2007-21-09/Modified%20GuidelinesforNeonatalRodentEuthanasia%207-21-09.pdf> .

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. 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 lhochman@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>