

The Backbone

December 2005

Volume 12 Issue 4



CONGRATULATIONS! UM ACHIEVES FULL AAALAC ACCREDITATION!




The Association for Assessment and Accreditation of Laboratory Animal Care, International (AAALAC, Intl.) conducted its triennial site visit of the University of Michigan's animal care and use program and facilities from February 28 to March 3, 2005. At the site visit team's recommendation, the AAALAC, Intl. Council awarded the University of Michigan FULL ACCREDITATION in November 2005. Credit and thanks go to each member of the University of Michigan animal care and use community for making this a successful site visit.



While the AAALAC, Intl. site visitors commended the University of Michigan for the overall high quality of its animal care and use program, they also provided a list of suggested improvements. The University is expected to make steady progress toward implementing these suggested improvements, and report on that progress in its annual reports to AAALAC, Intl. Typically, if not implemented, AAALAC, Intl. suggestions become accreditation issues in subsequent site visit evaluations.

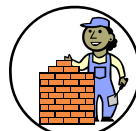
The University of Michigan animal care and use program and facilities have been accredited by AAALAC, Intl. since 1971. UM is one of nearly 700 accredited animal care and use programs in the world. Of the top 100 institutions receiving funding from the National Institutes of Health, over 95% have achieved AAALAC, Intl. accreditation.

Achievement of AAALAC accreditation could not be possible without the cooperation and efforts of every member of the University's animal care and use community. Again, many thanks and congratulations! 

Inside this **SPECTACULAR** issue...



Ungerleider Awardee



The New BSRB Building

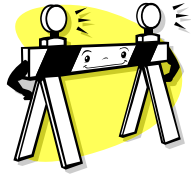


eSirius Tips



Use Categories Explained

The Backbone is a quarterly publication of the University Committee on Use and Care of Animals (UCUCA)



CONSTRUCTION ZONE: THE NEW BSRB BUILDING



By Chris Katz
ULAM

Let's talk about the lot at the corner of Zina Pitcher Place and Ann Street. Do you remember when a bank stood along Zina Pitcher? Do you remember the convenience store? Do you remember the Neuroscience Building? It seems like these buildings were torn down so long ago. If you remember any of these, you probably also remember the massive hole that was dug to lay the foundations for our new building. Dump truck after dump truck hauled millions of tons of soil out of that hole so the Biomedical Science Research Building (BSRB) could be constructed. We are now on the eve of opening this new, state-of-the-art facility.

Of course, with biomedical science research comes the need to house the animals that will be utilized as research models for the various studies being conducted. This is where that large hole comes into play. The vivarium levels of BSRB are all underground, four floors deep to be exact. Two floors are dedicated to housing animals and two floors are dedicated to machine rooms and interstitial service space. The vivarium is a whopping 54,500 sq ft, divided among levels B and D. Level D, the very bottom, is comprised of 11 full-sized and two slightly smaller housing rooms, seven procedure rooms, two behavior testing suites, an animal surgery suite, cage wash facilities, and an aquatics suite. Level B has 18 full-sized animal rooms, 11 procedure rooms, two behavior testing suites, and two suites of quarantine cubicles. The building is equipped with automatic watering and ventilated cages. The supply and exhaust air for the cages is provided by the building HVAC system so there are no blowers sitting on top of the racks.

Each full-sized housing room has the capacity to hold 840 mouse cages. This gives BSRB the space to house a total of 28,280 cages of mice, if every room is filled with mice. (The facility has the capacity to house other species as well, but the building capacity is calculated on the basis of mouse cages since mice are currently the most commonly used research animals.) To provide some reference points, this is about twice the size of LSI, about five times the size of the MSRB area, and about seven times the size of the CCGC area! If that isn't big enough already, nearly one-half of both levels B and D are currently unfinished, shelled space. These areas will be finished once the first stage of the building is completed. When complete, an additional 36,000 sq ft of space will be available, bringing the total BSRB vivarium space to just over 90,000 sq ft!

We are scheduled to start moving into BSRB starting February 13, 2006. The Medical School Facilities Office has distributed a move-in schedule for the various laboratories that will be the initial building occupants. Unless otherwise specified, our goal at ULAM will be to move your animals the same week as your lab moves. If you are concerned about the ventilated cages, let me try to help put your mind at ease. We currently have the same type of system at LSI. Many groups of mice that were not productive breeders in the older types of ventilated racks (with the blowers mounted on top of the rack) have had no problems breeding in the racks that utilize the building HVAC system to provide the air flow. Some of you may also be concerned about the automatic watering system. Our plan will be to provide your mice with the same watering system as they are currently using. If they are already housed in ventilated cages with an auto-water system, it will be an easy move to BSRB. If they are on water bottles, we will place them on water bottles at move-in and then slowly transition them to the automatic system. Mice are very good learners and the majority have no problem adapting to the auto-water system.

Continued on page 5...

EXTRA, EXTRA! READ ALL ABOUT IT! RON OLDFIELD WINS UNGERLEIDER AWARD

By Terry Fracala
Administrator for the Ungerleider Award Committee

Ronald Oldfield, a graduate student in the Department of Ecology and Evolutionary Biology, was awarded the 2005 Jody C. Ungerleider Memorial Award. Ron was selected from amongst several highly-qualified and well-deserving individuals for his outstanding contributions to the humane care and use of laboratory animals. Ron has demonstrated a lifelong passion and commitment to fish biology and more recently, fish behavior. Ron has served as a Graduate Student Instructor for numerous biology courses since he began his post-graduate training in 2000. Most recently, he has served as a Research Assistant in the Museum of Zoology Fish Division.



Ron saw the need to have the largest live animal room in the Museum recommissioned. Over the course of several months he transformed a 500 sq ft, deteriorated room into a home for hundreds of live animals. It is now a world-class aquarium room housing nearly fifty aquaria in all, ranging from 10 to 200 gallons in size, with many researchers using the facility. In-between teaching, studying, and renovating the animal room, Ron founded a major Michigan aquarium society, The Aquarium Society of Ann Arbor (ASAA), which has allowed members of the Ann Arbor community to join in discussions with scientists about many aspects of fish care and well-being.

A quote from a letter supporting his nomination best describes Ron's contributions to animal welfare through the ASAA: *"Topics and activities range from the discussion of natural history and tank maintenance to tours of the USGS and the Belle Isle Aquarium. The health and well-being of animals used for scientific purposes are often a major discussion point. I personally have learned a lot from Ron about the proper care of animals. All of us in the Society owe Ron a great deal for sharing his knowledge of animal welfare."*

The Jody C. Ungerleider Memorial Award was established in 1983 after the untimely death of Jody Ungerleider, a Research Assistant for the University of Michigan. Jody believed profoundly that the humane care and welfare of all animals used in research should be one of the highest priorities of those involved in biological experimentation. The purpose of the Ungerleider Award is to recognize individuals within the University of Michigan whose activities and attitudes toward the use of laboratory animals in research are consistent with those high standards. A quote from a nominator ascertains the honor in receiving this distinguished award: *"It is nice to be able to recognize the wonderful efforts of those who care about animals and are true advocates of animal welfare. I have never met anyone who better fits this description than Ron Oldfield."*

A similar quote from a colleague and nominator demonstrates his impact on attitudes and standards toward providing humane animal care and use specifically for non-traditional laboratory animals: *"Ron has given talks strongly advocating providing proper living space to research animals. Ron has taught us about such things as using the proper tank size, and allowing for suitable group size to ensure creating comfortable habitats for the animals."*

Ron was honored by members of the UM animal research community at an award ceremony in December. He received an individual plaque and a cash award of \$200. Ron's name will also be engraved on a "traveling" departmental plaque, which will be put on display in the Museum of Zoology during the next year. For more information about The Aquarium Society of Ann Arbor, please visit: <http://sitemaker.umich.edu/aquarium.society>.



ANIMAL USE CATEGORIES: EXPLAINED!

By Jessica Kanitz
UCUCA



The University Committee on Use and Care of Animals (UCUCA) has adopted new categories for reporting animals used in research. With the implementation of eSirius, the new online application program, the UCUCA revised and updated many parts of the animal use application process. One of the first things to change was the way the Humane Use Categories (HUC) were designated. Categories D, E, and F were replaced by Use Categories 1-9. The new categories provide a detailed definition and specific examples of procedures that warrant placement in a category. In the paper Form 8225 applications, the previous HUC D is now category 2, HUC E is category 6, and HUC F is category 9. All new eSirius animal use applications can assign animals more appropriately with the new categories as described in the table below:

CATEGORY	PROCEDURE DESCRIPTION	EXAMPLES
1	No manipulations or procedures conducted on the animals.	Observation without euthanasia at the end of the study.
2	Procedures cause only slight or no pain or distress.	Euthanasia without anesthesia, injections, breeding, tail biopsy (before 21 days of age in mice), non-debilitating tumor growth, anesthesia for chemical restraint, oral gavage.
3	Procedures cause some minor pain and/or distress, but anesthesia is used to alleviate these effects.	Tail biopsy requiring anesthesia, implantation of peripheral catheters, subcutaneous implants, intracardiac injections.
4	Procedures cause pain and/or distress, but anesthesia is used and animals are not allowed to recover.	Major non-recovery surgical procedures or euthanasia requiring anesthesia prior to death (organ/tissue removal, thoracotomy, perfusion under anesthesia).
5	Procedures cause pain and/or distress that is alleviated by euthanasia.	Debilitating tumor growth, toxicity tests, ascites production. Animals are not permitted to spontaneously die, but will be sacrificed when showing signs of morbidity.
6	Procedures cause pain and/or distress, but anesthetics or tranquilizers are used to alleviate these effects.	Major recovery surgical procedures (thoracotomy, craniotomy, laparotomy).
7	Procedures are expected to cause distress, however no method is available which would alleviate these effects.	Prolonged/chronic restraint, stress experiments, paralysis, prolonged food/water restriction.
8	Procedures require the animals to feel pain in order to fulfill the aims of the study.	Noxious stimuli, death as an endpoint, inflammation.
9	Painful or distressful procedures for which anesthetics, analgesics, and tranquilizers are purposefully withheld because their use would adversely effect the results of the study.	Trauma or burn on unanesthetized animals.

ANIMAL USE CATEGORIES: TAIL FLICK ASSAY

By Jessica Kanitz
UCUCA



What category should these animals be in...?

When completing your animal use application, understanding what Use Category an animal should be reported or categorized can be difficult. The new Use Category definitions (see table on page 4) will make it easier; however, on occasion certain procedures do not seem fit the standard definition. One procedure that falls into this gray area is the tail flick/dip assay. This procedure, an assay mainly used in analgesic research, involves exposing an animal's tail to a stimulus (usually a focused laser beam or a beaker of warm water) and measuring the length of time it takes for the animal to remove its tail. The UCUCA has written a policy for categorizing this procedure, and is summarized below; the entire policy is available on the UCUCA website (<http://www.ucuca.umich.edu/>).

If the animal is not given analgesics and can readily move its tail it can be categorized in Use Category 2 because the pain is considered momentary or slight. In order to satisfy this categorization, however, the investigator must:

1. Detail the time limits set for exposure to the noxious stimulus in the event that complete analgesia renders the stimulus imperceptible. This time limit should be of such duration that tissue damage should **not** occur as a result of complete analgesia.
2. Describe the consequences to the animal's skin and tissues if there were to be accidental prolonged exposure to the noxious stimulus.
3. Address the number of repetitions of this study that an individual animal will experience in a given time period.
4. Assure that the animal will in no way be prevented from moving its tail by manual restraint, by additional pharmacological means beyond analgesia (e.g., muscle relaxants), or by physiological inability (e.g., genetically altered mice with neurological or muscular defects).

If satisfactory responses are not provided, then animals that receive therapeutic doses of known analgesic compounds would be categorized in Use Category 6 and animals that receive subtherapeutic analgesic doses, doses of unknown compounds, or no analgesics would be placed in Use Category 8.

Please contact the UCUCA Office at (734) 763-8028 or ucuca.office@umich.edu if you have any questions about this new policy.



...BSRB, continued from page 2

Finally, I would like to introduce the ULAM staff that will be in charge of operating the new vivarium. Michelle Garner and Julie Brinkmeier will be the Animal Care Supervisors. Dr. Lesley Colby will be the veterinarian with clinical responsibilities. Chris Katz, Assistant Manager of Husbandry Services, will oversee the day-to-day operations. We will be establishing a schedule of training sessions that all vivarium occupants will be required to attend in order to get their ID card activated for building access. Watch for more information on this and other topics as it becomes available. Please feel free to contact any of us if you have questions or concerns regarding your animals and BSRB.



ESIRIUS: TRICKS OF THE TRADE

By Steve Durkee
UCUCA

With the advent of eSirius, the new online animal use application system, *The Backbone* is pleased to present a new, soon-to-be-regular article offering hints, tips, and help for navigating this brave new world. This first article will be devoted to an issue that affects all animal users at the University of Michigan: how to determine how many animals are available on your approved animal protocol.



1. To start, you must login to eSirius (<http://esirius.med.umich.edu/esirius/>).
2. From your home page, click "View Protocol Species Usage Register."
3. Find your protocol. Enter the protocol number where it says, "Protocol Number," making sure to type a zero before the 4-digit protocol number, and click the box where it says, "Current Protocol Only." If you do not know the protocol number, you can search for the protocol by the species, approval status, or all protocols for your laboratory.
4. After entering your search criteria, click the "Search" button. The species listed in the protocol, designated Use Categories, approved totals, and current balances will be listed.
5. To see when animals were deducted, select the radio button next to the desired species/Use Category and click "View Register Detail for Selected Protocol."

This process allows investigators or designated lab personnel to check animal balances and when deductions were made on a protocol, a feature not available until now.

The UCUCA also offers a training course to help you learn how to effectively use eSirius. If you are interested in attending this course, please register online at <http://www.ucuca.umich.edu/>.



BRING RECOGNITION TO YOUR LAB!

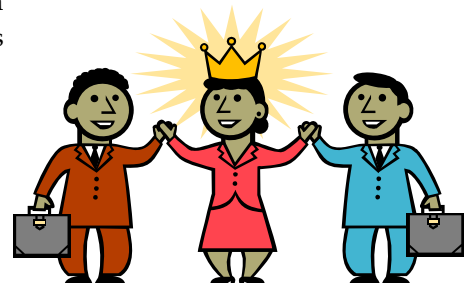
JODY C. UNGERLEIDER MEMORIAL AWARD

NOMINATE YOUR STAFF MEMBER OR STUDENT WHO HAS MADE AN OUTSTANDING CONTRIBUTION TO THE HUMANE CARE AND TREATMENT OF ANIMALS USED IN BIOMEDICAL EXPERIMENTATION.

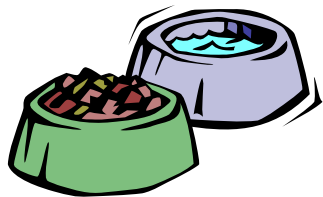
Research staff and students who participate in any aspect of animal research or use of animals for education and training are eligible. The award consists of a plaque appropriately inscribed and a cash award of \$200.

For more information and nomination guidelines visit:
[http://www.research.umich.edu/contacts/ovpr/
Ungerleider_Memorial_Award.pdf](http://www.research.umich.edu/contacts/ovpr/Ungerleider_Memorial_Award.pdf)

Letters of nomination for 2006 will be accepted beginning July, 2006.

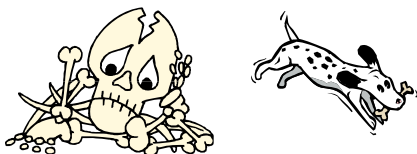


BONE FRAGMENTS



GOT FEEDBACK?

Do you have questions, comments, corrections, or suggestions about *The Backbone*? Is there a topic you would like to see covered in a future issue? We want to hear from you! Email us at ucuca.office@umich.edu or call (734) 763-8028 and tell us about it!



GET A BACKBONE!

Readers wishing to receive future issues of *The Backbone* can be included on the mailing list by completing and returning the request form on the back page of the newsletter. Additional copies of *The Backbone* are also available from the UCUCA office.

SNAIL MAIL



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WHEN ONE AND ONE DOESN'T EQUAL TWO

By Sharon Reske
ULAM

The average mouse litter is between six and eight babies. This means that by tax time, April 15, three breeding harems with one male and two females each, will have produced 192 offspring. The increase in mouse population is more than 21- fold! Rodent colonies can get out of control quickly, but there is help available.

ULAM offers a rodent breeding colony service. There are four dedicated technicians: Kimberly Gates, Busola Popoola, Sharon Reske, and Stephanie Steele, who have been trained in colony management at Jackson Labs. Currently, their services are being utilized by fifty labs throughout the university. If you would like additional information, please email ulam-bcm@med.umich.edu.

BREEDING COLONY MANAGEMENT SERVICES

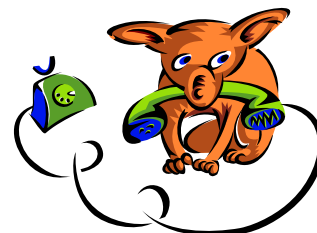
- # Communication with lab staff
- # Setting up matings
- # Ear tagging
- # Tail sampling
- # Managing timed pregnancies
- # Plug checking
- # Orbital bleeding
- # Saphenous bleeding
- # Record keeping



ANIMAL CONCERN HOTLINE

Animal Concern Hotline Number:
(734) 763-8028

Animal Concern Online Submission Form:
<http://www.ucuca.umich.edu/complaint.htm>



**IF YOU SEE ANYTHING THAT TROUBLES YOU,
PLEASE DO NOT HESITATE TO CALL OR SUBMIT
AN ANONYMOUS REPORT ONLINE!**

The Backbone

- Add my name to your mailing list.
- Send me _____ additional copies of *The Backbone* _____ (Month/Year).

Please complete and return to the University Committee on Use and Care of Animals (UCUCA).

Name _____ Department _____

Telephone _____ Fax _____ Address _____ Campus Zip _____

Principal Investigator _____

E-mail Address _____

Topics/areas of interest you would like to see explored in future issues: _____

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