

# **Animal Dairy Science Facility Handbook**

# Animal Dairy Science Facility Handbook

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# Animal Dairy Science Facility Handbook

## Welcome

This handbook has been prepared to provide information and guidelines for anyone currently using or planning to use animals in the Animal Dairy Science Animal Facility. It may not cover all of your questions, so please feel free to ask any of the people listed in the section below.

The Animal Dairy Science Animal Facility provides animal care to Animal Dairy Science's Faculty Investigators. The facility is staffed part time on weekdays and weekends. The staff is made up of both full-time and part-time staff members, many of which hold American Association for Laboratory Animal Science certifications. The staff is also available to assist researchers and instructors whenever possible, but please keep in mind their busy schedules and provide advanced warning when possible so that the staff can plan to be available to assist you.

Standard animal caging, feed, lighting, temperature and humidity are provided by the facility, exceptions made only with approval from both IACUC and Assistant Director.

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## *University Research Animal Resources*

### *Life Sciences Unit Staff*

#### Attending Veterinarian/Director:

Leanne Alworth

Phone: 706-542-6084

E-mail: [alworth@uga.edu](mailto:alworth@uga.edu)

#### Animal Resources Manager:

Robin Kavanaugh

Phone: 706-542-6083

E-mail: [robink@uga.edu](mailto:robink@uga.edu)

### *Animal Dairy Science Facility Staff*

#### Animal Dairy Science Facility Supervisor:

Kristine Wilcox

Phone: 706-542-0289

Or 706-542-6209

E-mail: [ksuzor@uga.edu](mailto:ksuzor@uga.edu)

There are also part-time student workers available in the facility.

Emergency numbers are posted next to the facility phone. The phone is located in the hallway of the facility

#### Important Phone Numbers

Office: 706-542-0289

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## Key Cards and Facility Access

The Animal Dairy Science Animal Facility is protected by a magnetic card reader system. All facility users seeking access Animal Dairy Science Animal Facility must acquire a proximity card from the UGA Card Office in the Tate Center. Cards should be obtained at least 2 working days before expected use, to enable any unforeseen problems to be cleared before the card is needed.

Once a proximity card is obtained, a legible photocopy should be made of the front and back of the card with the name of the lab's head investigator written on the copy. The copy should then be given to the facility supervisor. Access to the facility is usually granted in 24 hours. If you do not already have building access, please contact Robin Kavanaugh at (706) 542-6083. A proximity card is required to access the building during the weekend; otherwise the building is open during normal working hours.

Please keep in mind that children and pets are not permitted in the facility. A member of the Animal Dairy Science Animal Facility staff must accompany all visitors.

## Entry and Exit Procedures

### Facility Entry

The entrance to the Animal Dairy Science Animal Facility is located on the 1st floor of the Animal Dairy Science building. There are double doors in the building that will give you access to the facility. The double doors are located in the front hallway and back of the building. To enter the facility one must pass their proximity card over the card reader. The double door will audibly unlock. Then you enter and then will repeat the procedure at the single door inside the hallway to the left. When entering the animal facility, be sure not to allow others to follow in behind you. This undermines the security of our facility and keeps us from identifying users. Do not let in people you do not recognize, even if they say they need to be let in. If you hear knocking, or someone follows you in, find the Facility Supervisor or a Full-time Technician and alert him or her.

Upon entering the facility, personal protective equipment (PPE), such as lab coats, scrubs and shoe covers, is available in a plastic bin beside the entry door, or in room 135. To enter the facility, you must wear shoes with covered toes, and shoe covers. If you are entering the facility, but will not enter an animal room or handle equipment, no further PPE is required. To enter an animal room, or handle equipment, you **must** wear a lab coat, gown, or scrubs. There are PPE signs outside of each animal room, pay close attention to the specific PPE listed for the room you plan on entering.

### Entering General Animal Rooms

To enter an animal room you **must** wear a lab coat, gown or scrubs. This practice is to protect you from carrying allergens and contaminants on your street clothes back to your lab or home, and to protect your mice from the microbes you bring into the facility on your street clothes. To handle anything in the animal room (cages, animals, equipment) you **must** wear gloves. This protects both you and the animals.

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## Exiting General Animal Rooms

Wash your hands after removing and properly disposing of your gloves in the trash receptacle provided by the door to each room.

## Rooms Requiring Special Procedures

### Entering a Barrier/Immunocompromised Room

Barrier housed mice are sterile housed and require special procedures to ensure their health. Autoclaved or disposable gowns, gloves, face masks and shoe covers are available **inside or immediately outside of** the rooms; do not use personal protective equipment (PPE) from other rooms in the facility. Tape on the floor marks the barrier “ante-room” area, where PPE is donned. You can only step into the area beyond the tape with shoe covers. Gowns should be donned before crossing the barrier tape, and shoe covers should be put on one at a time while stepping over the barrier tape one foot at a time. Gloves should be donned after shoe covers have been put on, to keep them from getting contaminated if they touch your shoes.

### Exiting a Barrier/Immunocompromised Room

When procedures are finished in the barrier room, you may walk directly over the tape and remove your PPE. Autoclaved gowns can be reused if placed back in their bags. Bags should be labeled with the name of the user, and after one week of use they should be placed in the gown bin to be laundered and re-autoclaved. Gloves, shoe covers and facemask should be thrown away in the trash receptacle provided.

### Entering Infected/Quarantine Rooms

Animals with questionable health status and or injected with a chemical agent are housed in cages with micro-isolator bonnets. The cages in these rooms are marked clearly as to what they are. Bio-containment is extremely important in these rooms and we require your full cooperation in these procedures. Disposable isolation gowns, facemasks, gloves and shoe covers are provided in the hallway out the door of each room that holds infected or quarantined animals. All of these items must be worn to protect both user and animals. There is no need for step over procedures for shoe covers when entering in these rooms.

### Exiting Infected/Quarantine Rooms

Specific exit procedures are required to contain infectious organisms within the quarantined room. Shoe covers should not be allowed to touch the floor beyond the quarantine room threshold, so remove shoe covers as you step over the threshold, placing them into the biohazard trash receptacle provided. Remove the isolation gown and mask and place them into the biohazard trash receptacle provided. Remove your gloves last.

If you have dirty biohazardous cages to remove from the room, they must also be bagged inside the animal room before you remove your PPE. The bag should be sprayed with the appropriate disinfectant. The appropriate disinfectant will be agreed upon by animal resources in consultation with your lab and provided by animal resources. Remember to notify the Animal Dairy Science staff that you have left dirty cages in the room, so they may be properly handled.

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## Exiting the Animal Facility

Upon finishing your work, you should always go to room 135. Laundry baskets are provided for dirty lab coats and scrubs. Shoe covers can be removed and discarded in the trash receptacle by the entry door.

## Animal Environment

### Macro-environment

Light cycles in the animal rooms are controlled by Light timers on the wall. The temperatures of the animal rooms are monitored by Andover Temperatures. The default light cycle is 12:12, 12 hours light and 12 hours of dark. Light cycles can be adjusted by the Facility Supervisor if an investigator's research warrants it.

### Housing

The Animal Dairy Science Facility houses mice and rats. The facility follows all federal regulations and guidelines for the housing of animals in research.

Standard shoebox caging is provided for rodents. Regular water bottles are provided for drinking water. Automatic watering is also available when using the one cage system. These cages are bedded with Bed-o-cob combination bedding. Based on federal regulations, the maximum number of adult rats that can be housed in a group cage is 6. Smaller rats (up to 300g) may be pair housed in a rat shoebox cage. Mice can be housed no more than 5 to a cage. Please adhere to this regulation. Feed is provided in-room, in labeled containers. Animal Dairy Science provides Purina Lab Diets, including 5053- Rodent Diet and 5058 – Mouse Diet (Breeder Diet). Arrangements for special diets must be made with the Facility Supervisor.

## Animal Use

### Handling and Animal Use

Any investigator or researcher may request an animal handling training session from the Life Sciences Animal Resources Unit if they feel one would benefit their work. Please contact the Facility Supervisor or Attending Veterinarian regarding handling training. Any excessively distressing procedures, such as blood collection, euthanasia, any surgeries or animal manipulations **must** be done outside of the animal housing room, in the PI Labs or in the facility procedure/surgery room (160). These procedures are to protect the animals and to avoid unnecessary stimulation of the animals.

During the course of your research please keep in mind that mouse cages **must** only be opened inside a laminar flow change station or biosafety cabinet. Any and all in-room animal manipulations **must** be done under a laminar flow change station or biosafety cabinet. These procedures are to protect the animals. The biosafety cabinets in the facility are not appropriate for work with volatile chemicals or anesthetic gases.

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## Anesthesia

URAR-LS requires researchers who use the animal facility provided anesthesia vaporizers to provide and use their own induction chamber and nose cone/face mask. URAR does not provide these items for general use.

This is to protect the health status of the colony rodents by preventing the spread of infection among colonies in the facility via anesthesia equipment. In order to prevent contamination from your lab, please do not bring this equipment back and forth from your lab. You will be allowed to store your items in the animal facility, and your Supervisor will inform you of the location options for storage. We suggest you keep it in a locked container labeled with your lab name.

The systems are manufactured by VetEquip. Purchase information is listed below. Please ask your Supervisor if you have any questions.

List of Vet Equip options Induction

chambers: <http://www.vetequip.com/item.asp?cat=6&catalogID=941443-54>

Rodent nose cones/face masks:

<http://www.vetequip.com/item.asp?cat=2&catalogID=nosecone>

## Breeding

There are alternate methods for breeding rodents.

Pair breeding consists of 1 male and 1 female in the cage. With this method, only 1 female is reproducing with the male, but due to the post-partum estrus, they can have a litter approximately every 21 days.

Harem/group breeding consists of 1 male with multiple females (2-4 depending on the cage dimensions). We do not allow multiple litters in the same cage, because pups of different ages can out compete each other for milk, or trample each other, and by the time of weaning, the cage is too crowded. Therefore, with harem breeding, females must be separated before they give birth. With this method, more females are simultaneously reproducing with 1 male, but they do not mate at the post-partum estrus, and will not breed again until the litter is weaned and the female is placed back with the male.

## Weaning

Litters of mice over the age of 21 days are considered adults and should be weaned accordingly, unless specific exceptions are in the project's AUP to extend the age of weaning. Weanlings should be separated by sex into cages of 5 animals or less, independent of their weight at weaning. If training is needed on weaning procedures, please contact the Facility Supervisor.

## Census Log

Any permanent removal of animals, animals found dead, and transfer of animals from another other investigator's colony or vice versa must be recorded on the census sheet to ensure proper billing. Animals and cages are both counted. The personnel responsible for their weaning must add weaned litters to the census sheet. Columns on the left side of the



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sheet are designated to different categories such as, received/weaned, used by the lab, transferred or found dead. The two large columns are for animal count and cage count. Any entries should be initialed.

## Reporting Sick or Dead Animals

If a sick or dead animal is found in an animal room, the animal must be reported to the lead tech and/or facility supervisor, or the vet tech. If no one is available, or animals are found on the weekend or a holiday, there are numbers for on-call veterinary assistance listed next to the Facility Supervisor's office.

Sick animals should be reported to a member of the URAR staff immediately. Sick animals will be given an identifying tag or cage card. For mice, the pink identifying card is the medical record, and all treatments must be noted on the back of the card. For some species, a paper medical record maybe used. The Attending Veterinarian and/or Vet Tech will be contacted, will determine the appropriate veterinary care, and will contact, directly or via the Animal Resources staff, the investigator's lab with the recommended treatment plan. The plan will be discussed, and with input from the lab, a plan will be decided. It is the responsibility of the lab to follow the treatment plan decided. Changes to the plan may only be made by the Attending Veterinarian or Vet Tech.

Dead animals should be removed from the home cage and placed in a bag labeled with the room number, investigator name, date and location of cage. Once placed in a properly labeled bag, the carcass should be put in the necropsy refrigerator and logged in on the log sheet. The animal should also be recorded under the found dead column of the census sheet on the proper date. The lead tech or facility supervisor should be informed of the death.

## **Acquiring Equipment**

Clean cages are provided for your use in Clean Cage Storage (room 132). You may take clean cages as needed, but please take only the number of cages you need, as cages cannot be used in other rooms once they have entered an animal room. If your animals are housed in a barrier room, or housed in sterile cages, cages are prepared by the animal care staff and provided in the animal rooms. Please notify the facility supervisor if you find you do not have enough prepared equipment available.

## **Animal Transportation**

Movement of animals from one animal room to another animal room within this facility or to another animal facility must be arranged with your facility supervisor before you move the animals. Also, if you plan to take animals out of the facility and return them alive to be housed in the facility again, you must arrange the plan with your facility supervisor before you move the animals.

### Transportation within the Facility

Animals that are being transported within the facility must be transported in a closed container, preferably a rodent cage. This is to prevent escapes and protect the health of both animals and staff.

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## *Transportation outside the Facility, within the Building*

Animals that are being transported to labs outside of the Animal Dairy Science facility must be transported in cages with micro-isolator tops. Use of the home cage is preferred, if possible.

If live animals are returned to the facility, the container must be sprayed thoroughly with disinfectant before it is placed into the laminar flow change station or biosafety cabinet. The animals should be transferred to a clean cage, and the dirty cage taken directly to the dirty cage wash room.

## *Transportation out of the Building*

Animals that are being transported out of the Animal Dairy Science building must be transported in closed opaque containers or containers that have been covered to conceal their contents. Covering the cage with a trash bag is acceptable, along with using larger shopping bags that conceal their contents. Bags should not be closed tightly, and should be removed from the cages as soon as they arrive at their destination, to prevent smothering. For rats or large numbers of mice, URAR staff can provide you with shipping boxes to use as temporary holding during transport to the lab.

If live animals are returned to the facility, the container must be sprayed thoroughly with disinfectant before it is placed into the laminar flow change station or biosafety cabinet. The animals should be transferred to a clean cage, and the dirty cage taken directly to the dirty cage wash room.

## **Animal Health and Veterinary Services**

The Attending Veterinarian for University Research Animal Resources- Life Sciences Unit provides veterinary services for the Animal Dairy Science Animal Facility. The animal care staff checks animals visually, on a daily basis. Any injuries or illness noted by the animal care staff will be reported to the Facility Supervisor and/or Attending Veterinarian and/or Vet Tech. A pink Sick animal card and placed on the cage. This card should only be removed when the animal is dead or the illness/injury has been determined to be resolved. Only the Attending Veterinarian or the Vet Tech, or their designee may resolve a case. The Facility Supervisor and/or Attending Veterinarian and/or Vet Tech will examine the animal. Investigators will then be contacted about the animal and the recommended treatment plan.

Concerns about animal welfare, illness or injuries can be taken to your lead technician, Facility Supervisor, or Attending Veterinarian.

## **Euthanasia Station**

The Animal and Dairy Science Animal Facility has one euthanasia station located in the dirty cage wash room (136). This station provides gaseous CO<sub>2</sub> for humane euthanasia. Standard Operating Procedures for the use of the CO<sub>2</sub> stations are posted and must be followed. Federal regulations stipulate that a secondary, physical method is required after CO<sub>2</sub> administration to ensure complete euthanasia. Appropriate secondary methods are listed at the stations. The method of euthanasia used must be on the approved research AUP.

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If you need instruction on proper euthanasia techniques, please contact the Facility Supervisor.

## **Non-Animal Investigator Needs**

### Cabinets and Drawers

Animal Dairy Science currently does not have cabinets and drawers. If you would like to have a space for your lab's items, please speak with the Facility Supervisor, at least 48 hours in advance of when you will need the space.

### Drugs

Investigator drugs should be stored in the investigator's lab, not the animal facility. If an investigator feels that s/he must store drugs in the facility, the investigator will need to discuss the matter with the Facility Supervisor and Attending Veterinarian.