

NRC BEHAVIOR CORE **GENERAL PROTOCOLS**

All experimenters must receive Behavior Core training and equipment-specific instruction before the first experiment is performed in Suite H.

- Some experiment and equipment protocols are available through the NRC behavior tech
- Each person within the requesting lab who plans to utilize the Behavior Core and its equipment must receive instruction; no vouching for other lab mates

The lab performing the experiments must either include all tests in that lab's AUA or they can submit an amendment referencing the Core's AUA.

- Only the tests to be performed need to be listed, descriptions of each are already included in the Core's AUA
- Amendment to be submitted is as follows:
 - The following behavioral tests will be performed under the Neuroscience Research Center's Rodent Behavior Core AUA00003358: [list tests to be performed]. Tests will be performed in the H Suite of the TBRC.

All BRC general rules and regulations must be followed while in the H Suite.

If you or your PI are new to rodent behavior assays and handling, please set up a consultation prior to additional training and scheduling assays. Setting up a consultation with one of our experienced faculty members will help us better understand what your needs are, and will overall improve the level of service you receive in the Behavior Core.

Personal Conduct and Safety

Proper BRC attire is required:

- Isolation (yellow) gowns and gloves are required for entry and are available outside of the suite
- Alternatively, a lab coat may be used, but this coat should be for behavior ONLY (no contact with other species, blood, etc.)
- Closed toed shoes required

Open and close the Suite H door as quietly as possible, making sure all doors properly shut behind you. Please work as quietly as possible while in the suite to minimize any interference with ongoing experiments.

The majority of lighting in Suite H is controlled by an automatic system; therefore, please do not turn off the lights when leaving the rooms for the day.

- **The ONLY exception is room C0880, where the experimenters are responsible for turning the lights on and off**

It is absolutely necessary to limit any exposure to scents or odors in the Behavior Core. Do not wear perfume or cologne!!! There are numerous behavioral experiments that rely on scent conditioning of the animals. Deodorant is acceptable.

Do not perform any blood-work, dissections, or rat handling prior to running behavioral experiments in Suite H. If you need to work with rats, plan your schedule to handle them after doing your mouse experiments in Suite H.

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Animal Transfers and Housing

Room C0860 is on a reverse light cycle

Room C0870 is on a 12/12 light cycle

H Suite has temporary housing for TBRC and non-TBRC animals that are being used for active experiments only.

Suite H and Suite S has special BRC exemptions when it comes to transfers and housing. No transfer papers or quarantine periods are necessary for the daily transfers or temporary housing of animals. However, it is necessary to make sure census sheets and AUA information is adjusted.

- Ensure that the animals are removed from their original census sheet and added to your census sheet in Suite H.
- Be sure to include if there's an AUA transfer on the sheet
- Be sure to fill out your census sheets on the door! Fill out your AUA information on one of the blank copies provided if needed

If you intend to temporarily house ten or more animal cages within Suite H, please email Tiffany Butler or Clarissa Brown with your basic animal information. Be sure to include information such as:

- PI name
- Quantity of mice/number of cages
- Originating building and suite location
- New location (Suite H, C0860 or C0870)
- Estimated time period of occupancy
- Special accommodations (most importantly, any special food diets)

Once behavioral experiments are complete in Suite H, the animals can be transferred back to their "home suite" or sacrificed. **The animals cannot be permanently housed in Suite H or moved to any new locations other than its original building/suite!!!**

Do not bring outside lab carts into the suite. There is a cart available for use within the suite. If it's essential to bring a BRC cart into the suite, it must be **clean and wiped** with CDox before entry. This is true before entry into any suite, and this must be done every time.

If the transferred animals are coming from rooms/cages with lick spouts, change their cages to the static cages that are provided in H Suite. Make sure to also include water bottles, which can be found by the sink in the suite.

When placing used cages on the dirty cage rack, be sure to dismantle all components and stack the cages appropriately so the BRC staff can safely handle them.

Once animals are transferred to Suite H for temporary housing, a 24 hours acclimation period is necessary before the animals can be used for performing experiments. Remember that any transfer, no matter how small, can cause stress for the animals and impact your results!

- 24 hours is the *minimum* time for the acclimation period; however, it is suggested for animals being housed in reverse light cycle to extend that period up to a week before running experiments

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Room and Equipment Reservations

Sign up to reserve **room** and **equipment** needed for your experiments at least 24 hours in advance, if possible. This is done using the Gmail calendar associated with the account below:

[Information presented at Orientation]

To reserve a room follow these steps:

- On the left hand side, click on the calendar dropdown menu to select the room your experiment will be performed in (There is a copy of the Suite H blueprint with room numbers in the inbox of the email account)
- Click “Create” or “Edit” to change the event
- Enter experimenter name, lab extension, email address, room and equipment needed into the “What” field
- Select dates and times wanted to be reserved

If you wish to reserve a room for the same time period multiple days:

- Click what time and day you would like your experiment to start
- Click “Edit Event”
- Title your event (including name and email address)
- Choose a start day
- Choose a start time
- Choose an end time
- Click the option for “Repeat”
- Choose “Daily” from the dropdown menu
- Choose “End On” and select the end date
- Choose the proper room from the calendar drop down
- Click “Save”

When reserving a room you MUST specify the times in which you plan on doing your experiment. “All day” reservations will no longer be allowed. If your experiment will run all day, specify the time in which you will come in in the morning and the time you will leave (9am-5pm or 8am-6pm, etc).

Please only book a room for the duration of your experiment. An experiment may change during its course, but please be sure to appropriately plan your timing. Excessive booking and canceling of rooms will not be tolerated. Take into consideration:

- Number of animals being used
- Duration of each trial
- Amount of time it takes to set up and clean up

Experimental planning will only be allowed 3 continuous weeks in any one room. Anything beyond 3 weeks will need special permissions.

The Procedure Room (Room C0865) may be booked on Google Calendar, but you must allow entry of other H Suite guests into the room. Multiple pieces of equipment are stored in C0865 and thus everyone should have access to them. C0865 is also used for temporary holding of animals in between experiments.

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The Core Computer, which is used for camera and data analysis, must also be scheduled on Google Calendar separately.

In the event your experiment does not run as long as you expected, edit your reservation in the Calendar to allow others access to the room.

If you decide not to run your experiment, the reservation must be canceled as soon as possible. If you do not show up to a reservation, there will be penalties; including losing Behavior Core privileges.

Room and Equipment Procedures

Each person can reserve one experimental room at a time, and each room can have one experiment in progress at a given time. **There are absolutely no dissections, blood-work, or sacrificing of rodents in the behavior suite. Animal injections are acceptable.**

Familiarize yourself with the signs on all the doors in Suite H. When an experiment is in progress, turn the signs on the door to **“Experiment in Progress”**. This notifies other staff members that the room is being used. No one is allowed to enter the room, except the experimenter who reserved it or has given special permissions to enter the room. The BRC will also not enter the room.

When the experiment is complete, turn the sign to read **“BRC entry permitted”**. This indicates to staff members and the BRC that the room is accessible and no live experiments are in progress. This is imperative as the BRC staff will not clean a room unless this sign is visible!

If you are the last one in the H Suite for the day, please do not forget to flip the entry door sign as well!

Do not use duct or packaging tape on the walls or ceilings. It takes the paint off the walls. The behavioral core would need to be temporarily shut down and repainted if there is paint damage. This may affect behavioral experiments that are time sensitive. Lab labeling tape, painter’s tape or electrical tape is okay to use.

When using the equipment, sign in in the **Equipment Log Book** on the sheet corresponding to the equipment used. Sign-in sheets are currently located by the H Suite entry door.

- Directions for filling in the sheets are located in the binder
 - If video tracking equipment is used for an experiment, check off which software was used on the equipment sheet.
 - If only video was used (the experiment was run at a different time than analysis or in another Suite) fill out the ‘Software Only’ log
 - This includes any training or optimizing that is done
- Make note of any equipment issues
- Abbreviated versions of the log are located on each door as well. **Both sheets must be filled out daily.**

If you need to move something, please exhibit caution while relocating it or ask for help. Also, ask the behavior technician if you’re unsure if an apparatus can be moved or not. Some equipment cannot be moved due to the high risk of damage to it. Please make yourself aware of which category your equipment falls into. Here’s a list of some of the tests that can be moved from room to room depending on need:

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- Large open fields
- Sociability
- Rotarod
- Novel object recognition
- Marble bury
- Aggression
- Hot plate test
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Do not leave equipment set up on the floor overnight. It is a potential safety hazard, and it could lead to equipment damage. The only exception to leaving an apparatus set up overnight is if the room is booked for multiple days and if the apparatus can be placed off the floor.

Be sure not leave the camera mounted on the track in C0880 or the tripod in C0885. The cameras have the potential of falling from the mounts, causing damage or hurting someone. Cameras must always be taken down when not in use, and absolutely cannot be left up overnight.

If you do move equipment, please move it back to the “neutral” position when you are finished with your experiment. Report any equipment problems as soon as possible to Behavior Core personnel (contact information on final page).

Make sure to turn off all equipment (camera, DIG boxes, extra lights, etc) when finished with your experiments.

Cleaning Procedures

Please be courteous to your fellow experimenters. Clean up after yourself!

If your experiment is being conducted while cages are being changed, you will be responsible for cleaning your animals' cages.

Follow the “**Standard Operating Procedures: Decontamination of Behavioral Equipment**” sheet.

- Wash only metal or plastic parts that fit in the dish pan with dish soap
- Allow to dry overnight in room in which the experiment was performed
- Spray with alcohol before and after use
- Spray down countertops with alcohol

Please also make sure to sweep up any excessive bedding or feces on the floor. The BRC staff usually clean the rooms once a day; so, it is our responsibility to clean it throughout the day to make sure it's in good condition for the next experimenter.

Data Collection

The video cameras for Suite H and Suite S are stationed by the NRC Core Computer (located in the NRC lab space).

Each lab is responsible for its own data!!! Please be aware that computer memory is limited. Data should be removed at the end of each day or as soon as possible.

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Experimenters can also store data on **lab flash drives** or **external hard drives**. There is an NRC external hard drive associated with each computer for temporary use. If you are temporarily storing data on the NRC external hard drive, create a folder on the external hard drive with your lab's name in it. **External hard drives will be wiped out on a monthly basis. Make sure any needed data is removed from them or it will be lost.**

DO NOT save/store any data on the "Desktop" of the core computers. Protocol/Experiment files (ex: ANY-maze Protocol files) are the only acceptable forms of data to leave on a core computer (as this ensures the proper function of the computer programs).

Any publications in which the Core was used (either equipment or rooms), needs to cite the Core:

"Research and Education Initiative Fund, a component of the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin"

Rooms

C0860—Temporary reverse light cycle housing

C0865—Prep Room

C0870—12/12 light cycle temporary housing

C0875—Self-administration

C0880—Radial arm maze, mouse place preference, ceiling tracking camera, EthoVision, Anymaze

C0885—Small open field chambers, light-dark box, 2 chamber CPP, tripod camera, EthoVision, AnyMaze

C0890—Large fear conditioning, prepulse inhibition

C0895—Small fear conditioning, treadmill, grip strength, Rat conditioned place preference

Behavioral Core Staff

If requesting tech time from the NRC for behavioral testing:

0-20 hours -- no charge (for NRC members*)

20+ hours – requires consultation

Jennifer Sterrett – Behavioral Technician – jsterrett@mcw.edu

- x2226
- Contact for equipment training

Breanna Glaeser – Core Manager – bglaeser@mcw.edu

- x2226
- Contact for equipment training

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*To become a member/learn about membership, contact Wesley Hoffmann at whoffmann@mcw.edu.

BRC Contacts

Tiffany Butler – TBRC Basement Supervisor – tbutler@mcw.edu

- 414-955-8204

Clarissa Brown – Supervisor ARC – cbrown@mcw.edu

- 414-955-8408

Remember, if you have any questions, please ask!