

## Overview

The **overall goal** of the MBPC is to provide MUSC and external investigators with the equipment, labor, training, and expertise for rigorous investigations of mouse behaviors.

By providing the critical equipment, facilities, dedicated labor, technical and theoretical knowledge, and training expertise, the **MBPC will overcome barriers to incorporating mouse behavioral assessment into high-impact, multidisciplinary research programs at MUSC.**

## Services Provided

- Experiment, IACUC, and Grant Consultation
- Letters of Support for submissions
- Hands-on Training to support independent use of the core
- Access to infrastructure to complete experiments
- Technician support to complete experiments
- Data analysis, display, and discussion consultation

## Available Assays

### Learning and Memory

- Spatial Working Memory (Y-Maze)
- Long-term Spatial Memory (Barnes Maze)
- Episodic Memory (Novel Object Tasks)
- Classical and Operant Conditioning

### Social Behavior

- Ultrasonic Vocalizations
- Sociability and Social Novelty
- Social Dominance

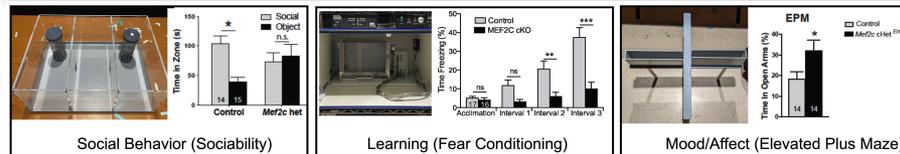
### Motor and Sensory Functions

- Novelty Induced Locomotion
- Motor Learning and Coordination (Rotorod)
- Shock sensitivity
- Startle and pre-pulse inhibition
- Repetitive Behavior (Stereotypy, Marble Burying, Jumping)

### Affect/Mood

- Depression-like behavior (Sucrose Preference, Forced Swim)
- Anxiety-like behavior (Light/dark, Elevated Plus)
- Impulsive choice (Go/No-Go)

## Sample Data



## Instrumentation

Room Number	Equipment or Use
BS415 (hall and atrium)	Transport cart storage, mouse acclimation space, PPE and other resource storage
BS415A	Fear Conditioning, Startle/PPI, 2-stage locomotor
BS415B	Sucrose self-administration, Go-No Go testing
BS415C	AnyMaze Recording Rooms: Barnes Maze, Y Maze, EOM/EZM, Open Field, Home-cage behaviors, Social Interaction, Tail Suspension/Forced Swim, etc
BS415E	
BS415F	Single-stage locomotor, conditioned place aversion/preference chambers

## How do I work with the core?

1. Contact Dr. Penrod-Martin for an initial consult
  - a) Experimental Design
  - b) IACUC considerations
  - c) Protocols
  - d) Quote and Approval
2. Submit IACUC amendment to allow for core use
3. Request access to Infinity calendar system and create/update user
4. Set up training with core personnel
5. Contract technician or schedule experiments
6. Contact Dr. Penrod-Martin for follow-up with data analysis, display, and interpretation

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## Fees

\$60/hr: training by core personnel  
 \$60/hr: experiments run by core  
 \$20/hr: experiments run by lab