

The IACUC at PITT

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What is an IACUC?

- Institutional Animal Care & Use Committee
- Required by Federal Law
- Oversees all aspects of vertebrate animal care and use – research or teaching

The University, IACUC and Animal Welfare

The University is required to maintain the highest standards of animal husbandry and care to ensure animal safety and welfare.

PHS

AAALAC

Program Management Responsibility

- ***Institutional Official*** – Dr. Bill Yates
Vice Chancellor for the Research Protections
Appoints members of the IACUC.
- ***Attending Veterinarian*** – Dr. Amy Cassano
Responsible for the health and well-being of all laboratory animals used at the Institution.
- ***IACUC*** – Responsible for assessment and oversight of the Institution's Animal Program and facilities.

Who Serves on the IACUC?

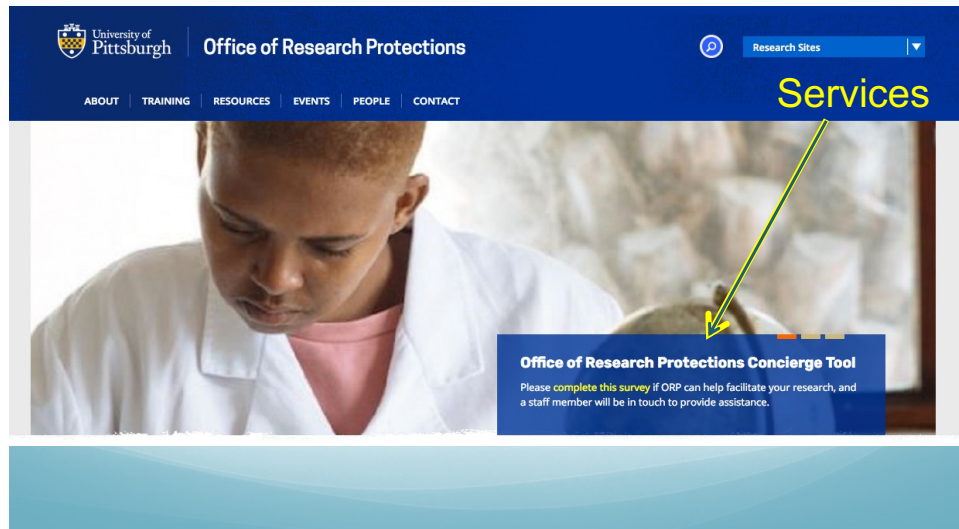
- Federal Law requires that the IACUC include:
 - *Scientists*
 - *Veterinarians*
 - *Non-scientists from the University*
 - *Non-institutional community representatives*
- The PITT IACUC currently includes:
 - ~ 36 voting members (from 23 departments)
 - ~ 14 consultants

IACUC = committee of your peers

IACUC/Animal Research Protection (ARP) is a division of the Office of Research Protections – ORP



The Office of Research Protections Provides Assistance to New Faculty



The IACUC oversees all aspects of animal care and use:

- **Reviews/Approves:** All research and teaching procedures using live vertebrate animals through **protocol review**.
- **Inspect:** the University's entire animal care and use program, including policies.
- **Report** to the **Institutional Official (IO)** regarding the status of the animal program.
- **Establish training program** for all personnel using or handling vertebrate animals in lab/teaching.
- **Develops policies** that reflect local concerns regarding the use of animals.

Laws that Govern IACUC Functions

Animal Welfare Act – “ACT-covered animals”

- Covers warm-blooded animals
~ rats (genus *Rattus*) and mice (genus *Mus*) are not covered
- Covers birds not purpose-bred for research
- Administered by the United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS)
- USDA performs regular (unannounced) inspections
- CDC inspects relevant areas of our program

Laws Governing IACUC Functions

Public Health Service (PHS) Act

- Animal use at institutions receiving funds from PHS.
- Covers any live vertebrate animal used or intended for use in research, training, experimentation, biological testing, or for related purposes.
- Administered by the NIH Office of Laboratory Animal Welfare (OLAW).
- Requires written assurance to NIH that the institution will comply with PHS Policy. Renewed every 4 yrs.
- Depends on the IACUC for enforcement.

& State and Local Laws and Policies

IACUC Oversight of Ongoing Studies

- **Semi-annual inspections** (every 6 months)
Inspects all animal housing and use areas to assure compliance with Federal regulations
- **Post-Approval Monitoring (PAM)** Conducts random audits to assure that studies are being performed in accordance with protocols
- Conducts “**for cause**” audits:
 - a concern regarding the study is reported to the IACUC – “whistle blower”
 - a University veterinarian reports that animal health was unexpectedly affected by the experimental procedures

IACUC Protocol Review

- Use of all vertebrate animals for teaching and research **MUST** be reviewed by the IACUC through protocol review **before** studies start.
- Currently >1300 protocols; >600 PIs
- Designated reviewer system; each protocol reviewed by **at least 5 individuals**, including a **veterinarian**, **scientist**, and **biohazards reviewer**.
- Any IACUC member can request to review any protocol and that a protocol be reviewed by the entire committee.

Timing of events

Online IACUC protocol management system

Before access to **ARO** is granted to the protocol PI
– PI must complete Required Training

- **Responsible Conduct of Research**
- **Working with Large (or Small) Animals**

Before an IACUC protocol will be approved:

- All **species-specific training** for all personnel listed must be completed
- **IBC protocol** must be approved – any recombinant DNA work ***breeding transgenic mice!
- **EH&S training** and enrollment in the **AESP** program

IBC = Institutional Biosafety Committee

AESP = Animal Exposure Surveillance Program

Contact person for your protocol

Very exciting title

Long Title:

PI: Deborah Chapman

PI Organization: U of Pgh | Faculty of Arts and Sciences | Biological Sciences

Study Coord:

Assigned IACUC Staff: Coordinator's name

EHS Risk Assessment Document: Chapman_Deborah_IS00015872_RA.docx(0.01)

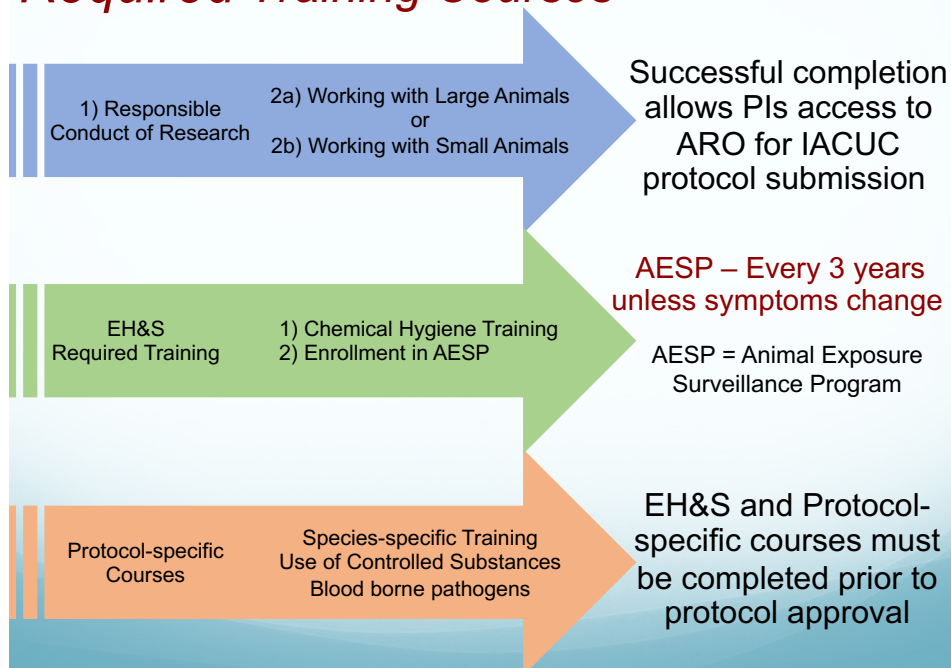
Training Requirements

Training requirements:

IACUC/ARP website: [IACUC-required training](#)

CITI Training – Used by many other universities – training from one institute may be transferred to Pitt.

Required Training Courses



Occupational Health and Safety

Animal users should know:

- Standard procedures (ex. decontamination)
- Hazards present in the animal room
- PPE to wear



- How to respond to an exposure or animal bite

cage-level signage

room-level signage

Congruency Reviews

- Granting agencies require that the IACUC review the grant application and assure that the proposed work is described in an approved IACUC protocols before funding is released.

Required 60 days prior to the release of funds - **changes daily
– Just In Time (JIT) now seems like A Little Too Late (ALTL) or Not Enough Time (NET).

Once you have a fundable score, complete the IACUC [Congruency Review Form*](#)

- *Send an electronic copy of the relevant portions of the grant to iacuc@pitt.edu.

Submission of a new protocol or modifications to existing protocols may be necessary – could delay funding

IACUC Protocol Review

After the initial review, the IACUC can:

- approve the protocol
- request changes/more information in the protocol prior to resubmission and re-review
- withhold approval
- full committee review – protocol-dependent

Once approved :

✓ requirement for an **Implementation Meeting (IM)** (prior to PI ordering animals)

- IMs held with required groups: Research PI/Group, Vet, DLAR, EH&S

Risk Assessment Document

Current State

Approved

Forms

[View Protocol Form](#)

[Printer Version](#)

[View Differences](#)

Activities

[Prepare-Edit Letter to PI](#)

[Make Copy of Protocol](#)

[Create 3rd Year Renewal or Major Modification](#)

[Request to Terminate](#)

T-box Factor Function During Mouse Mesoderm Development

(16)

Long Title:

PI: Deborah Chapman Date Created: 7/2/2019 10:30:00 AM

PI Organization: U of Pgh | Faculty of Arts and Sciences | Biological Sciences Date Last Edited: 1/1/2020 8:30:00 AM

Study Coord: Date Submitted: 8/1/2019

Assigned IACUC Staff: Marissa Arlet Outside Housing Sites: Yes

EHS Risk Assessment Document: [Chapman_Deborah_IS00015872_RA.docx\(0.01\)](#)

Approval Date: 9/20/2019 Expiration Date: 9/20/2021

Original Approval Letter: [View](#) Most Recent Letter: [View](#)

Original Approved Animal # Mouse 4230 Current Approved Animal # Mouse

Multi-Year Protocol - this protocol is part of a multi-year study consisting of two or more ARO submissions. Links to previous and/or succeeding protocols appear below.

Previous Protocol: [16109384](#)

Succeeding Protocol: [No Succeeding Protocol](#)

Risk Assessment Document



University of Pittsburgh Division of Biorisk Management Risk Assessment for IACUC Protocol

Section 1: Hazard Assessment Overview		Protocol Date	3/26/19	Assessment Completion Date	5/1
Project Title	Really exciting title				
PI Name	Very talented PI	Office		Phone	
PI E-Mail	PI@pitt.edu	Lab Locations	Pitt		
IACUC #	IS00012345	IBC #	N/A	Location Animals Transported To	
Animal Species Used	Mouse - For species-specific occupational health info, please visit phs.ucdavis.edu/animal/risk/index.cfm				
Implementation Review Required	Yes	Required Participants	P.I. and DLAR		
<p>NOTE: If an Implementation Review is indicated for this protocol, the PI must notify the appropriate departments (DLAR, EH&S, Radiation Safety) prior to animal ordering to determine if a further review is required. Failure to perform this notification may cause delays or other setbacks in project commencement and/or completion.</p>					
Hazard Summary					

Implementation Meeting?

Some items requiring an Implementation Meeting:

shRNA/Lentiviral Knock-Down

- Agent should be handled in a BSL-2 facility, using BSL-2 practices and containment.
- Lab should be signed as BSL-2, listing agent in use; agent should be handled in a certified biosafety cabinet.
- Animals exposed to agent must be housed in ABSL-2 housing rooms; housing room doors must be labeled with the name of the agent.
- It is the responsibility of the PI to label cages with the name of the agent and biohazard stickers.
- Any centrifugation of agent must be done in a certified biosafety cabinet using rotor lids or individual rotor cups with safety lids.
- Agent should be transported in a leak-proof container, including absorbent material and an appropriate biohazard label.
- Liquid contaminated waste must be disinfected before disposal; solid contaminated waste such as used plastic ware should be disinfected and then disposed as biological waste.
- Gloves should be worn at all times; double gloving (latex over nitrile) is recommended. Other personal protective equipment (PPE) including lab coat and eye protection should be worn when working with this agent.
- Per the OSHA Bloodborne Pathogen standard, EH&S recommends the use of approved safety engineered sharps devices (SESIPs) when working with this BSL-2 agent in animals.

Adeno-associated virus (AAV5-hSyn-DIO-EGFP, AAV5-hSyn-DIO-hM3Dq-mCherry, AAVrg pmSyn1-EBFP-Cre; AAV vector (AAV2-hSyn-hM3Dq-mCherry, AAV2-hSyn-hM4Di-mCherry, AAVrg-hSyn-hM3D(Gq)-mCherry, pAAV-hSyn-EGFP)

- Agent is a defective Parvoviridae virus (unable to replicate in the absence of helper virus).
- Agent is handled at BSL-2 or ABSL-2 (not due to direct human pathogenicity) because it is grown in human cells and there is a concern for human bloodborne pathogen contamination.
- Agent can exhibit prolonged survival outside of host (days to weeks) on lab surfaces at room temperature.
- Primary hazards include droplet exposure of the mucous membranes and direct injection. Special hazards include contact with infected animal tissues/wastes.
- Agent has the potential to cause illness in humans and should be handled in a BSL-2 facility, using BSL-2 practices and containment.
- Lab should be signed as BSL-2, listing agent in use; agent should be handled in a certified biosafety cabinet.
- Animals exposed to agent must be housed in ABSL-2 housing rooms; housing room doors must be labeled with the name of the agent. It is the responsibility of the PI to label cage cards with the name of Agent.
- Any centrifugation of agent must be done in a certified biosafety cabinet using rotor lids or individual rotor cups with safety lids.
- Agent should be transported in a leak-proof container, including absorbent material and an appropriate biohazard label.
- Liquid contaminated waste must be disinfected before disposal; solid contaminated waste such as used plastic ware should be disinfected and then disposed as biological waste.
- Per the OSHA Bloodborne Pathogen standard, EH&S recommends the use of approved safety engineered sharps devices (SESIPs) when working with this BSL-2 agent in animals.

IACUC Oversight of Ongoing Studies

Non-compliance with Federal Regulations or use of animals that is not consistent with an approved protocol can result in:

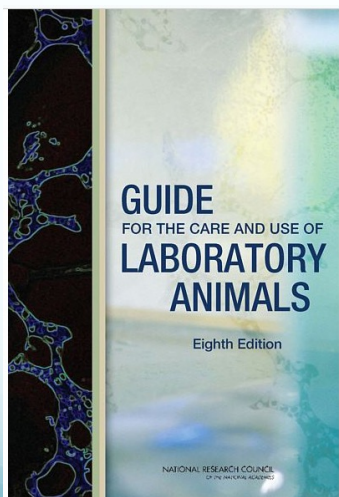
- A letter of reprimand
- Report the noncompliance to funding agencies (possible withdrawal of grant support)
- Suspension of the protocol
- Privilege to use animals in teaching or research at the University revoked

At any point, the IACUC can suspend an ongoing study or require alterations before additional animals are used

Oversight of the IACUC and Use of Animals at PITT

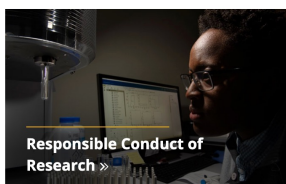
- USDA conducts unannounced inspections to assure compliance with the Animal Welfare Act and Regulations.
- Other Federal agencies (e.g., DEA, NRC, FDA, DOD, CDC) perform periodic inspections of specific components of the animal use program.
- The University is accredited by **AAALAC** – conducts thorough review of the IACUC and the entire animal use program every 3 years. **Fall 2028**

Guide for the Care and Use of Laboratory Animals 8th Edition, 2011

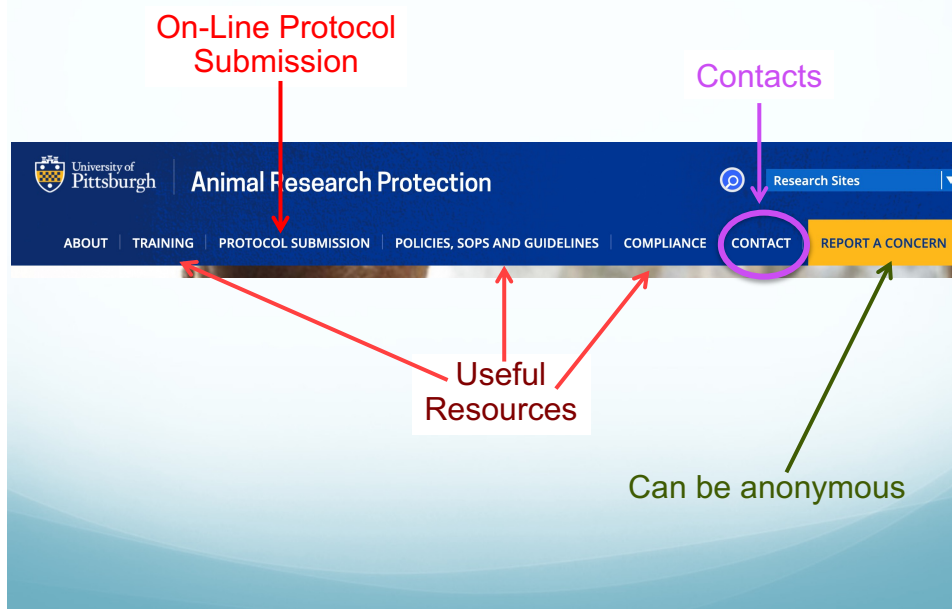
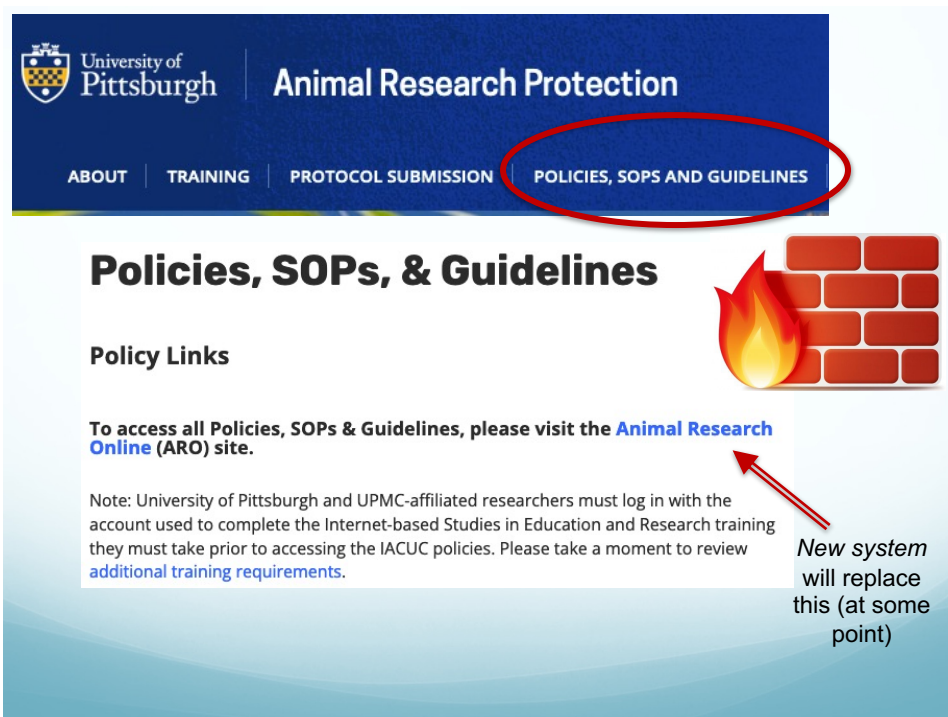


NIH requires that any institution receiving PHS support for animal activities base their animal care and use program on the 8th Edition of the *Guide*.

The IACUC is a division of the Office of Research Protections



Animal Research Protection Office



Policies, SOPs, & Guidelines

Browse this A-Z index for IACUC Guidance. The links will connect you directly to the guidelines, forms, checklists, training, and resources you need. For any items missing from this index, please email iacuc@pitt.edu.

[A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

Search for names..

E

[Endpoints in Animal Study Proposals](#)

This policy addresses experimental and humane endpoints of animal subjects.

[Animal Enrichment Program](#)

This DLAR policy describes structural and nonstructural provisions utilized within primary enclosures to encourage species typical behavior and activity and enhance animal well-being.

[Euthanasia Guidelines - Large Animals](#)

This policy describes the techniques approved by the IACUC for euthanizing non-rodent mammals.

Controlled Substances *(under "Compliance")*

The Drug Enforcement Administration (DEA) of the United States Department of Justice, which is responsible for enforcing the [Controlled Substances Act](#), has developed a number of regulations stipulating how controlled substances must be procured, secured, and safeguarded against diversion. These regulations are codified in the [Practitioner's Manual \(log-in required\)](#) and other [guidance documents \(log-in required\)](#).

Violation of laws and regulations regarding the procurement, safeguard, and use of controlled substances can result in severe penalties, including criminal prosecution, monetary fines, and imprisonment.

To aid University of Pittsburgh investigators in complying with the Controlled Substances Act and related regulations, [University guidelines](#) have been developed, as well as a number of internal implementation procedures.

- [Controlled Substances Guidelines](#)
- [Controlled Substances FAQ](#)
- [Forms & Links](#)
 - [Video About Controlled Drug Management](#)

Common Compliance Issues (and how to avoid them)

1) Protocol approval lapses *(note: monthly reminders from the IACUC are sent beginning 90 days before protocol expiration)*.

Every 3 years: new protocol submission

2) Personnel begin working with animals prior to being added to a protocol or completing required training for a particular procedure.

Submit a Protocol Modification Form to add personnel.

3) Animal procedures that deviate from those described in the IACUC protocol

*Changes to protocol are made by submitting a minor modification**

**not all changes are allowable*

Common Compliance Issues (and how to avoid them)

4) Improperly trained personnel. Lab/surgical procedures are passed down from PI to trainee to trainee to trainee **questions asked in IACUC protocol*

5) Animals taken from approved housing areas to use sites not listed in the protocol

6) Animals are maintained in a use area >12 hours without approval from the IACUC *

7) Updates to staff / emergency contacts listed on IACUC protocols

**Policies* on the IACUC website under Housing and Management/ Investigator-Managed Use Sites and Housing Areas

Once your protocol has been approved

Follow the signs & properly wear required PPE!!

Personal Protection Equipment (PPE)

Required PPE

All Rodent ABSL1



Coveralls



Gloves

Available in housing
and procedure rooms



Shoe Covers



Bonnet

Optional PPE



Mask

*PPE =
Facility and
Species-
Specific*

Facility tour
precedes being
granted access

Other Resources

- Animal Research Protection Office (ARP)
 - <https://www.iacuc.pitt.edu/>
- Office of Research Protections (ORP)
 - <https://www.orp.pitt.edu/>
- Institutional Biosafety Committee (IBC)
 - <https://www.ibc.pitt.edu>
- Division of Laboratory Animal Resources (DLAR)
 - <https://www.dlar.pitt.edu>
- Environmental Health and Safety Office (EH&S)
 - <https://www.ehs.pitt.edu/>

Questions?



General Notes – How to do things

List of abbreviations used in the animal room

Define your lab's sticker system



Talk to the DLAR staff!

Do your animals have unique phenotypes?

- Itchy skin
- Weird behavior

Are you manipulating your animals?

What is the expected outcome?

How will animals behave?

Chemicals

 Protocol #: PI Name:		DLAR/Hazard Stickers: <div style="border: 1px solid black; background-color: black; color: white; padding: 5px; text-align: center;">CHEMICAL HAZARD</div>
Species: Source: IHBC Date Rec'd: NA Stock/Strain: DOB: Sex: Animal ID #: PO#:		Notes: Tamoxifen

sticker

chemical hazard name

- All chemical containers must be labeled
- See **“IACUC Policy on Secondary Labeling”**
- An expiration date must be on the label of all drug containers
- Keep chemicals away from human or animal food items
- Fume hoods and Biological Safety Cabinets must be certified annually – EH&S & Filtech

CAMS Cage Cards

Activation strip

Receiving Card:

 Room #: _____ Date: _____ # of animals: _____ Place activation strip in cage card depository		DLAR/Hazard Stickers:
Protocol #: PI Name:		Notes:
Species: Source: IHBC Date Rec'd: NA Stock/Strain:		
DOB: _____ Sex: _____		
Animal ID #: _____		
PO#: _____		

Separating/Weaning Card:

 Room #: _____ Date: _____ # pre-wean use: _____ # weaned: _____ # split: _____ Place activation strip in cage card depository		DLAR/Hazard Stickers: <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; background-color: red; color: white; padding: 5px; text-align: center;">BIOHAZARD</div> <div style="border: 1px solid black; background-color: black; color: white; padding: 5px; text-align: center;">CHEMICAL HAZARD</div> </div>
Bar code#: 1234567890 Protocol #: PI Name:		Name of hazard
Species: Source: Date Rec'd: Stock/Strain:		Notes:
DOB: _____ Sex: _____		
Animal ID #: _____		
PO#: 1234567		

Documenting Procedures

Blue Procedure Cards

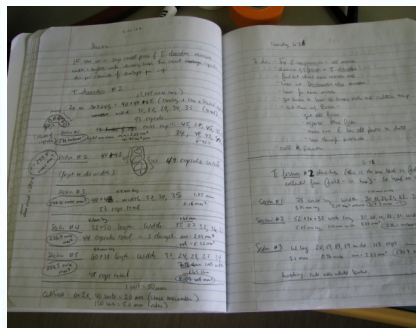
SURGERY/PROCEDURE		
PL _____	ROOM# _____	
CONTACT PERSON _____	PHONE# _____	
E-MAIL ADDRESS _____		
SURGERY/PROCEDURE	PERSON PERFORMING PROCEDURE (INITIALS)	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

front

ANALGESIA/OTHER TREATMENTS		
DRUG & DOSE		
DATE		
AM/PM		
INITIALS		
DRUG & DOSE		
DATE		
AM/PM		
INITIALS		
DRUG & DOSE		
DATE		
AM/PM		
INITIALS		
DRUG & DOSE		
DATE		
AM/PM		
INITIALS		

back

Research Records



Dates, procedures,
observations, initials

Write legibly

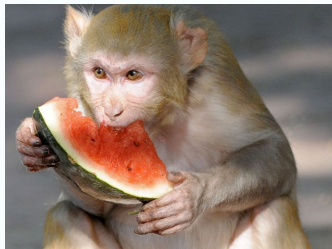
Visitors Policy

- Visitors to animal facilities must obtain permission from the Attending Veterinarian and complete any EH&S required clearances or training prior to entering the facility.



- To request permission, contact the DLAR at 412-648-8950 or e-mail the Attending Veterinarian at cassano@pitt.edu.

Animal Housing



- A CAMS generated cage card with the bar code must be on every cage

- CAMS card must have EH&S biohazard and/or chemical hazard sticker visible.



- Animals cannot be housed outside of the designated animal facility unless approved by the IACUC.

DLAR homepage

The screenshot shows the DLAR homepage with a navigation bar at the top containing links: Home, About, Operational Support, Resources, and Contact. On the right side of the navigation bar are links for CAMS Login, Room Scheduler, and Logout. The main content area is divided into three columns. The left column features three circular images: a snake, a building, and a city skyline. The middle column contains three sections: 'News' with links to COVID-19 guidelines, 'Vendor Notices and Announcements' with links to Envigo and Taconic seminars, and 'Charles River Off-site Breeding Program' with links to University of Pittsburgh discounts, ICM demo dates, shipping charges, and shipping dates. The right column contains two sections: 'Department Administrator' with links to CAMS Protocol & Accounts Form, CAMS Training, and Security Access; and 'Research Staff' with links to Animal Transfer Location Only Form, Fasting Request, Guidance Documents, Post-Procedure Form (PPF), Security Access, **Service Request** (circled in red), Training, and Treatment & Observation Form. A red arrow points from the top right towards the 'Service Request' link.

from DLAR homepage - Training

In-Person Training

Introduction to Rodents
Rodent Handling and Restraint
Rodent Treatments
Rodent Blood Collection
Rodent Necropsy
Large Animal Handling, Restraint, and
Treatments

Occupational Health and Safety

Injuries and Exposure Response:

Employees and Students should know the process!

1. Wash bite or exposed area with soap and water (or flush eyes and mouth with water)
2. Report the incident to your supervisor
3. Report for treatment to Employee Health (business hours) or UPMC Presbyterian Emergency Dept. (after 3:30 pm)
4. Complete reporting process to Workman's Comp within 24 hours