

Steps Towards Integrating Your IBC and Your IACUC

By
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UCSD Biosafety Officer
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UCSD Background

- ✔ School of Medicine
- ✔ Cancer Center
- ✔ 2 Hospitals
- ✔ Scripps Institution of Oceanography
- ✔ School of Pharmacy
- ✔ School of Engineering
- ✔ Super Computer Center



Scripps Pier, UCSD's Scripps Institution of Oceanography 1991
Courtesy UCSD Publications and Scripps Institution of Oceanography
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Clean Room at UCSD's Center for Molecular Genetics 1997
Courtesy UCSD Publications. Photograph by Marc Tule
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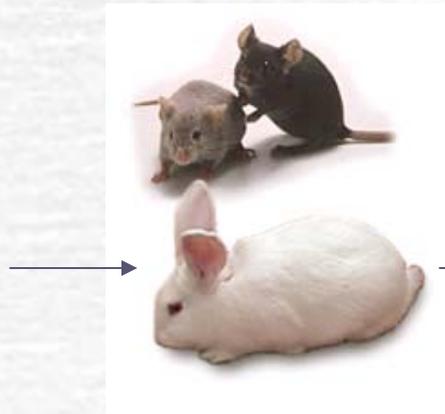
UCSD Facts

- UCSD – 4th largest employer in SD after the Federal Govt., State of CA., and SD Unified School District.
 - Academic = 6,404
 - Staff = 16,386
 - Students = 28,507
- Annual Research Funding - \$627 million
- NSF funding – 5th in the Nation
- 10th in nation (National Research Council) in quality of Faculty & Research Programs

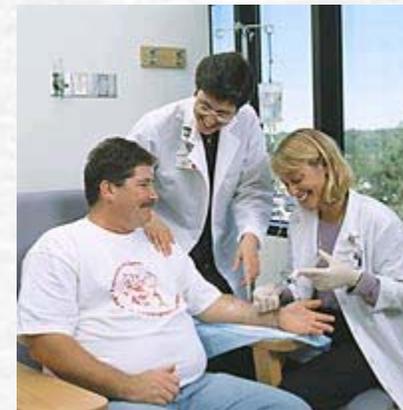
Evolving Process



In-Vitro



In-Vivo



**Human Clinical
Trial**

Collaborate with Your Campus Vets

- Dr. Phillip Richter
- Dr. Keith Jenne
- Dr. Jennifer Fujimoto



UCSD Vets

- Dr. Alice Smith
- Dr. Kent Osborne

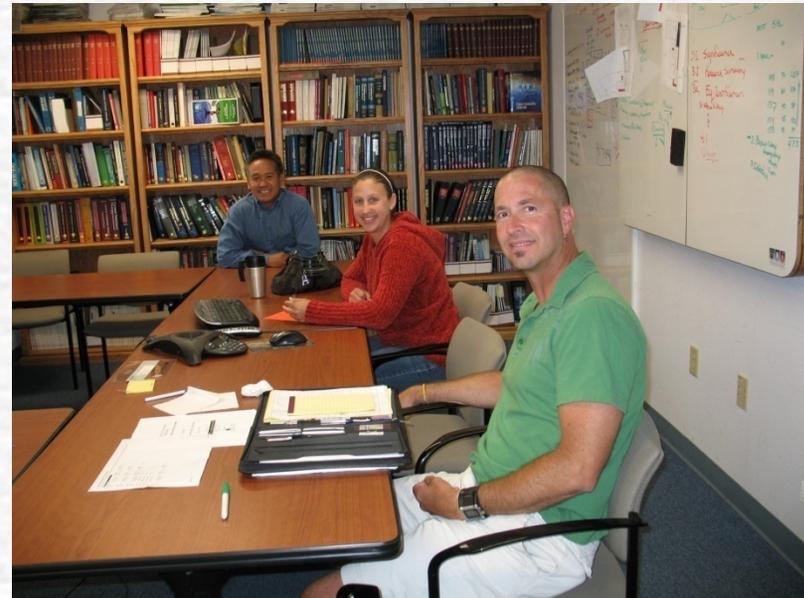


The Real Dr. Richter



Meet your local IACUC

- Animal Welfare Program Staff (Compliance)



Work With Animal Husbandry Personnel

- ☞ Get to know your front line personnel
- ☞ Provide regular safety training
- ☞ Be available to answer questions and problem solve



Why both committee involvement?

Projects using Biohazardous Material In-Vivo

- Biologicals

- Infectious agents
- Recombinant DNA
- Select Agents
- Toxins

- Chemicals

- Radioactive materials

Zoonotics

Overlapping mandates to see things are done safely



Discuss Common Issues

- Special Housing Requirements
- Specialized equipment
- Training for husbandry personnel
- Autoclaving, cage washing, disposal of bedding, carcasses



Occupational Health Issues

- Non-human primates
(including blood, body fluids)
- Pregnant mammals
(Q-fever)
- Wild-caught mammals
- Venomous animals



Office of Lab Animal Welfare

- Initiates and participates in occupational health policy & program implementation
- UCSD is an AALAC Accredited Institution



Risk Identification

- Veterinary review
- Animal Welfare Staff
- IACUC member reviewer
- EH&S as IACUC member/reviewer
- IBC
- PI



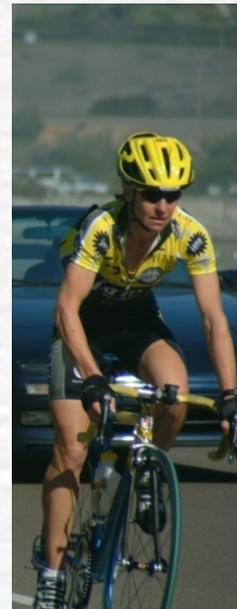
Issues To Consider

- Location for experiment
- Location for necropsy
- Specialized equipment:
 - Fluoroscopes
 - Stereotatic equip.
- Biohazard may be excreted by animal
- Instructions for husbandry personnel



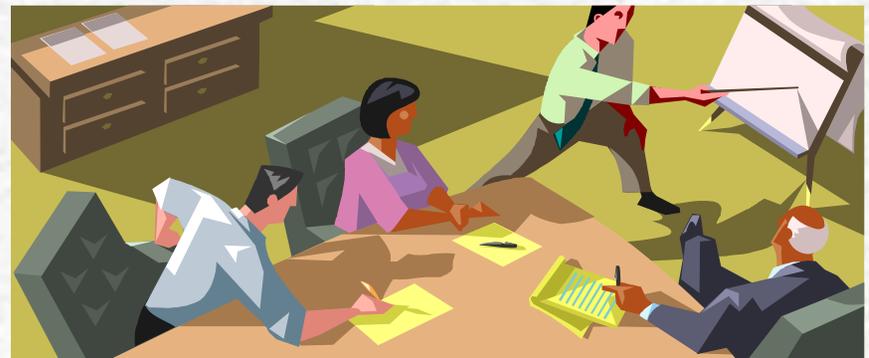
New At UCSD

- First Vivarium Safety Officer position held by Debbie Durand



IBC & IACUC Committees

- Vivarium Safety Officer serves on both committees for consistency
- Familiarity w/ animal issues and biohazardous materials
- Tracks problems & resolution



Biohazard Use at UCSD

- IACUC Committee Mtg Approval
- IBC Mtg. Approval
 - Sets conditions and locations
- **Biosafety Considerations Meeting**



Biohazard Considerations Mtg.

- Who should be there?
 - Vets, PI, EH&S, lab & animal husbandry personnel
- Convened just prior to experiment
- What is evaluated?
 - What is the biohazard? What are risks?
 - Is it excreted by the animal?
 - What type of anesthesia?
 - Terminal study?
 - Can exp. be done in a Biosafety Cabinet?



Biohaz. Considerations Mtg. (con't)

DISCUSSION:

- ☞ All personnel meet and tour special facility
- ☞ Risk Assessment made and evaluated by individual experiment
- ☞ Housing issues and caging
 - All cages labeled appropriately
- ☞ Anesthesia type discussed
- ☞ **Accidental exposure and first aid discussed**



Biosafety Considerations Form

- ☞ Tour of room and equipment
- ☞ Brief description of experiment (to be SOP)
- ☞ Entrance and exit procedures
- ☞ Protective equipment reviewed
- ☞ Appropriate disinfectants
- ☞ Cage handling
- ☞ Carcass handling and disposal
- ☞ Everybody signs document!
- ☞ All parties get copies

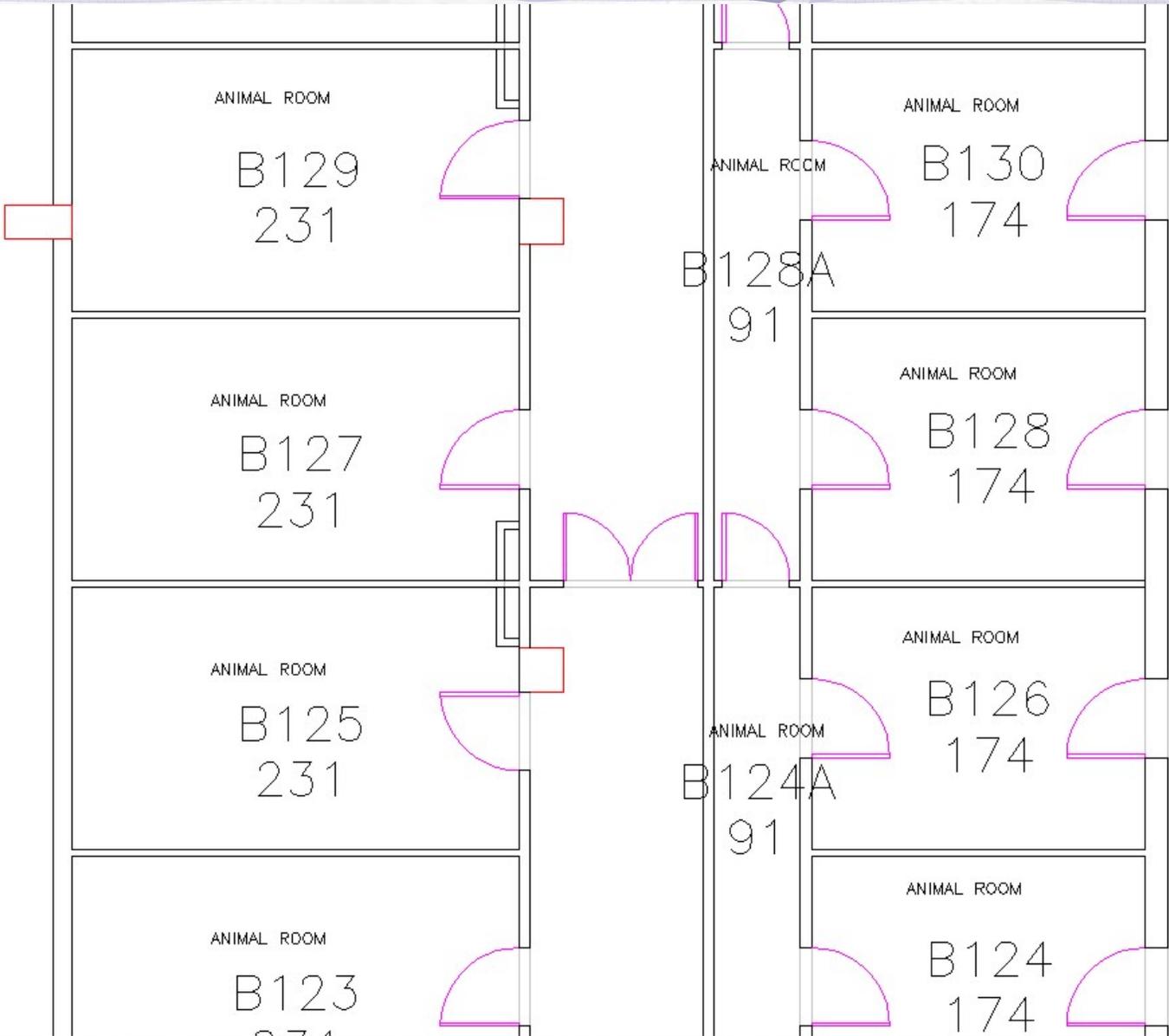
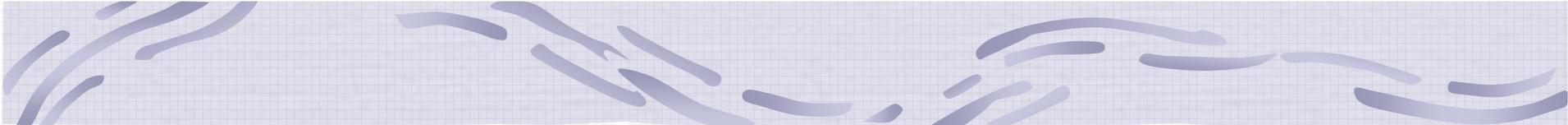


Specialized Procedure Rooms

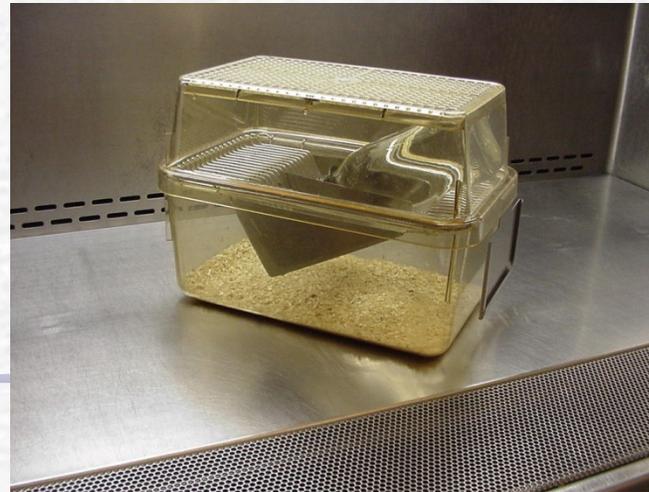
- Special designated procedure rooms:
 - Proper Protective Equipment (before entering)
 - Ventilated racks
 - Biosafety Cabinets
 - Biohazard bags & sharps containers
 - Cannot visit any other vivaria space upon exiting

Note: One way trip for all animals. They exit feet first.



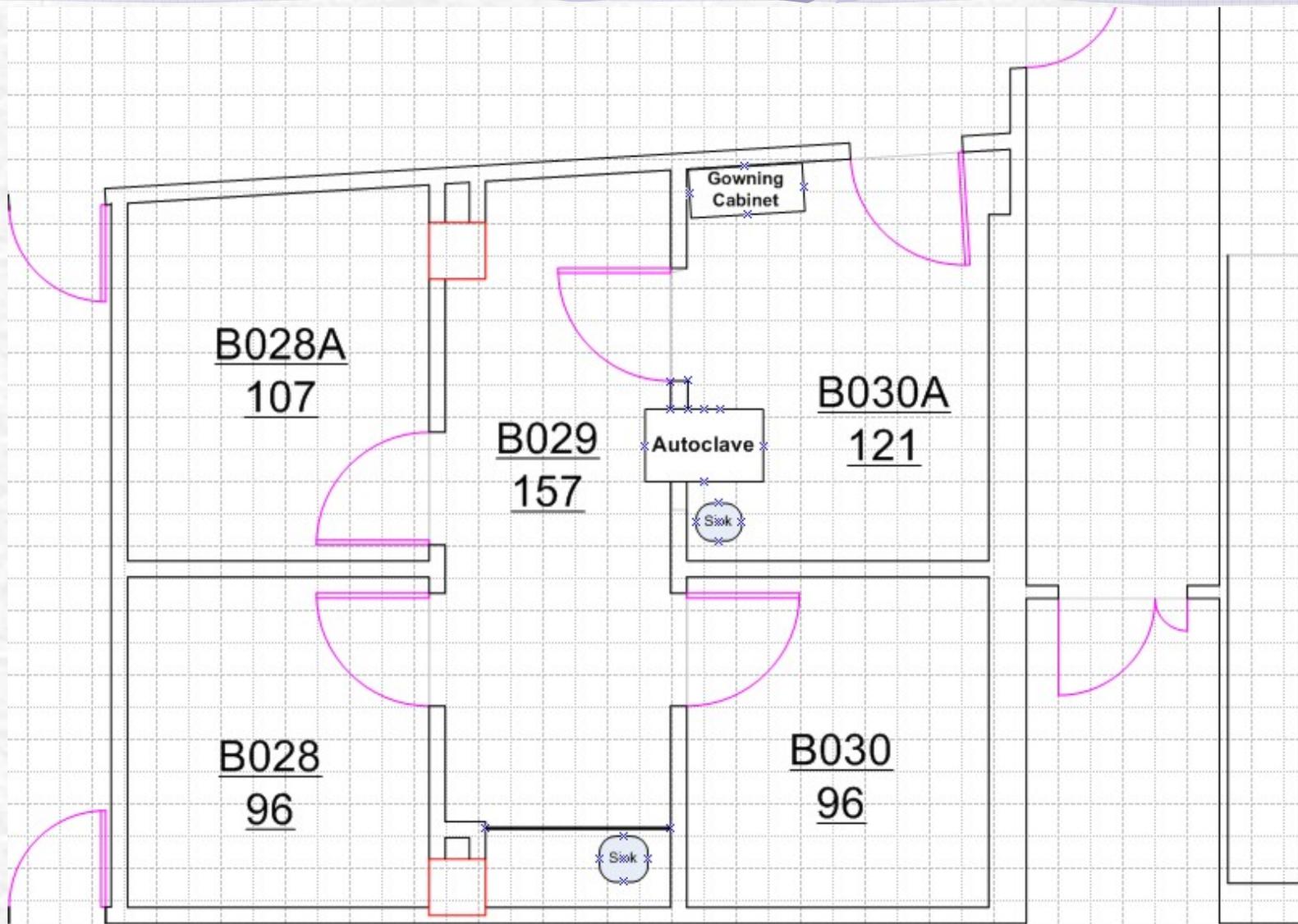


Specialized ABSL-2 rooms



Specialized ABSL-2 Rooms



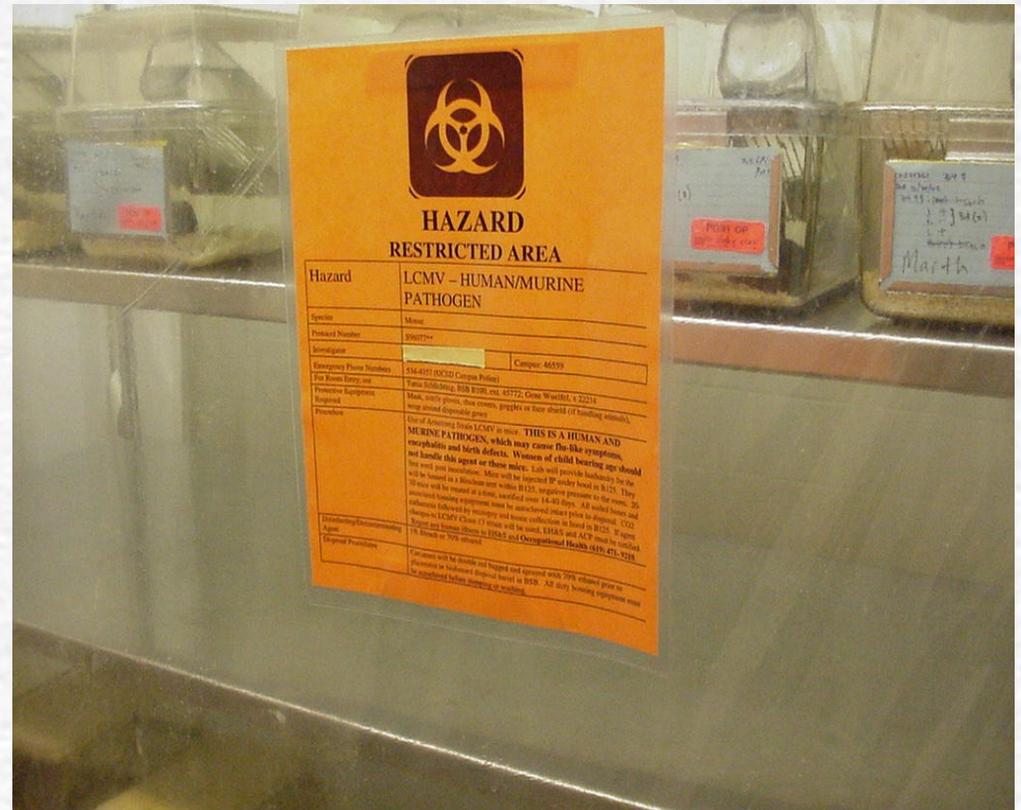


ABSL-2: Design variation










**HAZARD
 RESTRICTED AREA**

Hazard	LCMV - HUMAN/MURINE PATHOGEN	
Species	Mouse	
Packed Number	20072**	
Lot/Date		
Emergence Place Number	216-021 (DCCD Campus Police)	Campus: 6659
For Room Entry use	Time: 8:00 AM - 5:00 PM, 8:00 AM - 4:30 PM, 8:00 AM - 4:30 PM	
Protective Equipment Required	Mask, safety glasses, shoe covers, goggles or face shield (if handling animals), long-sleeved disposable gown	
Precautions	<p>Do not Approach LCMV in mice. THIS IS A HUMAN AND MURINE PATHOGEN, which may cause child-bearing age should not handle this agent or these mice. Mice will provide biohazard free to be housed in a Biosafety level 2 facility. All mice will be tested for LCMV within 14-21 days. All mice will be tested for LCMV within 14-21 days. The enclosed testing equipment used for animal testing is for use only. All equipment used for animal testing must be decontaminated after use. All equipment used for animal testing must be decontaminated after use. All equipment used for animal testing must be decontaminated after use.</p>	
Decontamination/Disposal Agent	1% bleach or 70% ethanol	
Special Precautions	Personnel will be alerted and tagged and approved with 70% ethanol prior to entrance to biosafety cabinet level 2 BSL-2. All daily biohazard equipment must be decontaminated before leaving or exiting.	



HAZARD	GIARDIA, SALMONELLA, CRYPTOSPORIDIUM, ENTAMOeba
SPECIES	MOUSE
PROTOCOL	S00205
INVESTIGATOR	ECKMANN
AREA LEADER	JASON RING x45772 cell (858)688-3044
HUSBANDRY	JANIE ORWIG x22214
REQUIRED PPE	BOUFFANT, N95 MASK, GOGGLES, EYE PROTECTION, DISPOSABLE GOWN, GLOVES, SHOE COVERS
EXIT PROCEDURES	DISPOSE OF ALL PPE PRIOR TO EXIT
DISINFECTANT	10% BLEACH SOLUTION, AIR-X 44
DISPOSAL PROCEDURES	ALL DISPOSABLE WASTE WILL BE RED BAGGED, AUTOCLAVED AND PLACED IN BFI CONTAINER ON BSB/MTF DOCK
SPECIAL CONSIDERATIONS	PI STAFF WILL PERFORM ALL HUSBANDRY ON THESE ANIMALS

HAZARD	ADENOVIRUS, ADENO-ASSOCIATE VIRUS
SPECIES	HAMSTER
PROTOCOL	S09060
INVESTIGATOR	ROSS
AREA LEADER	JASON RING x45772 cell (858)688-3044
HUSBANDRY	JANIE ORWIG x22214
REQUIRED PPE	BOUFFANT, N95 MASK, GOGGLES, EYE PROTECTION, DISPOSABLE GOWN, GLOVES, SHOE COVERS
EXIT PROCEDURES	DISPOSE OF ALL PPE PRIOR TO EXIT
DISINFECTANT	10% BLEACH SOLUTION, AIR-X 44
DISPOSAL PROCEDURES	ALL DISPOSABLE WASTE WILL BE RED BAGGED, AUTOCLAVED AND PLACED IN BFI CONTAINER ON BSB/MTF DOCK
SPECIAL CONSIDERATIONS	

POTENTIAL AVIAN ASSOCIATED PATHOGENS	
SPECIES	CHICKENS
PROTOCOL	S03082
INVESTIGATOR	VINETZ
AREA LEADER	JASON RING x45772 cell (858)688-3044
HUSBANDRY	JANIE ORWIG x22214
REQUIRED PPE	BOUFFANT, N95 MASK, GOGGLES, GLOVES, SHOE COVERS
EXIT PROCEDURES	DISPOSE OF ALL PPE PRIOR TO EXIT
DISINFECTANT	10% BLEACH SOLUTION, AIR-X 44
DISPOSAL PROCEDURES	ALL DISPOSABLE WASTE WILL BE RED BAGGED, AUTOCLAVED AND PLACED IN BFI CONTAINER ON BSB/MTF DOCK
SPECIAL CONSIDERATIONS	CHICKENS WILL BE INFECTED WITH Plasmodium gallinaceum, which is not zoonotic



BIOHAZARD

ABSL 2

! CAUTION

VIRAL VECTOR RISK
 This room contains animals with Adeno, Adeno-associated or Lenti viral vectors
 Cages must be opened only in a biosafety cabinet.
 Individuals who handle the identified animals must have taken viral vector training.
 MCCT vivarium specific attire is required, see below.
 Emergency Contacts:
 Amy Harpin: (858) 688-2720
 Isidro Lonzano: (858) 245-5216

PPE Signage

You must look like this



Street Clothes

OR

Like this to enter



Scrubs

- Hair Cover
- Safety Glasses
- Gloves
- Gown
- Shoe Covers

Nothing is Perfect....

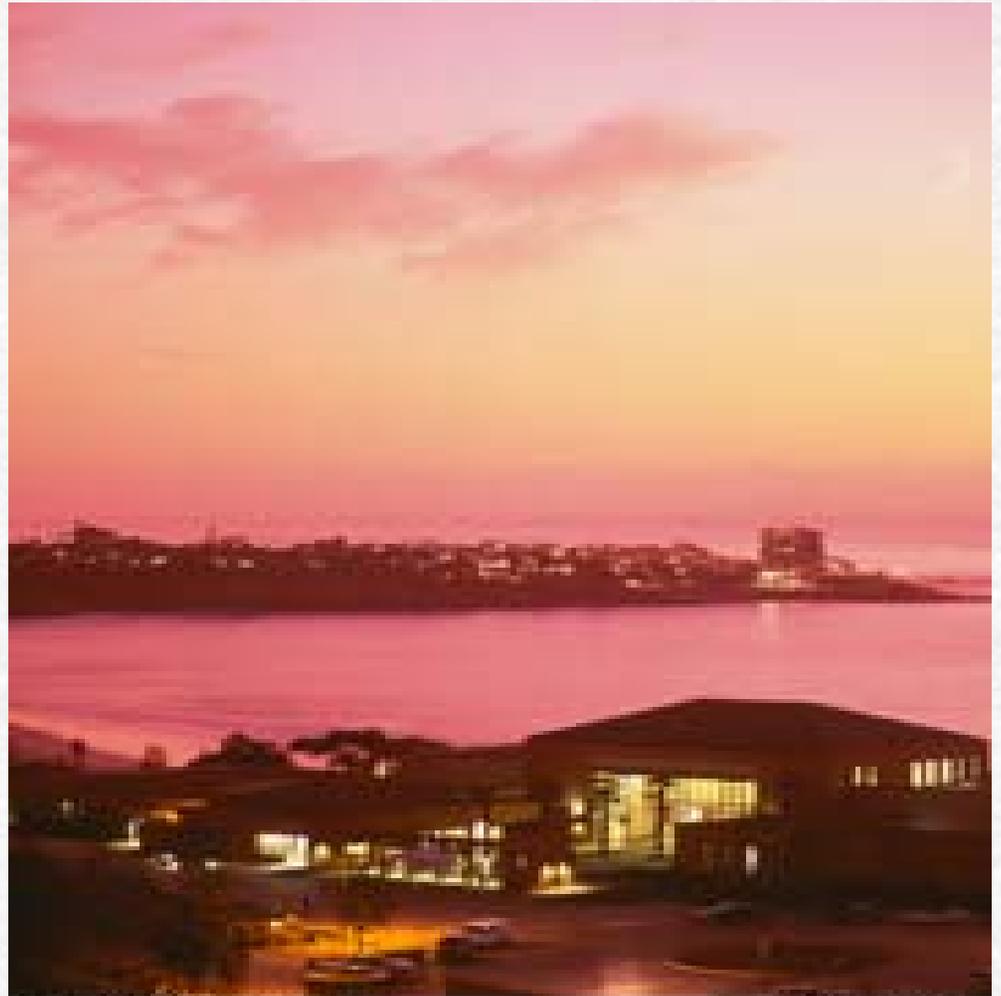


Summary

- ☞ Work together to problem solve
 - IBC & IACUC must both assess risks
 - Mock experiments may be required
- ☞ Communicate frequently
- ☞ Continually strive to develop a close working relationship
- ☞ Mutual Problem Solving



Questions?
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