Animal Procurement, Transport, Quarantine and Health Surveillance

D. Harrison
Supervisor QA Lab
Import/Export
Animal Procurement

How do we get them in?
And how do we keep them clean?
Animal Procurement

TOPICS

• Animal Procurement
• Transporting Lab Animals
• Receiving, Quarantine & Conditioning
• Microbiological Status
• Animal Health Maintenance
Animal Procurement

Sooner or later, PI’s will want to order in animals for their studies.
Animal Procurement

Facilities should have a centralized system in place for tracking orders and receipts.

We call our system GRANITE
Animal Procurement

Procurement Sources

• Approved Commercial Vendors/ Suppliers
• Other Universities/ Collaborators
• Unknown Commercial Vendors
Animal Procurement

An animal order must be placed with the Supervisor of the facility that will be receiving the animals.
# Animal Procurement

**University Laboratory Animal Resources**

**Animal Requisition Request**

<table>
<thead>
<tr>
<th>1) PROTOCOL MANAGEMENT INFORMATION</th>
<th>Purchase Order #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI Name (Print):</td>
<td>IACUC Protocol #:</td>
</tr>
<tr>
<td>Order Initiated By:</td>
<td>Phone #:</td>
</tr>
<tr>
<td>Funding Approval (Signature):</td>
<td>E-mail:</td>
</tr>
<tr>
<td>Contact Name:</td>
<td>Phone #:</td>
</tr>
<tr>
<td>In the event of animal health problems of death. (Please Supply Information Below):</td>
<td>E-mail:</td>
</tr>
<tr>
<td>Contact Name:</td>
<td>Phone #:</td>
</tr>
<tr>
<td>Fax Phone #:</td>
<td>E-mail:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2) DELIVERY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Name:</td>
</tr>
<tr>
<td>College:</td>
</tr>
<tr>
<td>Procurement Information: Org. #:</td>
</tr>
<tr>
<td>Fund #:</td>
</tr>
<tr>
<td>Account #:</td>
</tr>
<tr>
<td>Budget Year:</td>
</tr>
<tr>
<td>Procurement Information: Project #:</td>
</tr>
<tr>
<td>Program #:</td>
</tr>
<tr>
<td>Account #:</td>
</tr>
<tr>
<td>User Defined:</td>
</tr>
<tr>
<td>Per Diem Information: Org. #:</td>
</tr>
<tr>
<td>Fund #:</td>
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<tr>
<td>Account #:</td>
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<tr>
<td>Budget Year:</td>
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<tr>
<td>Program #:</td>
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<tr>
<td>User Defined:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3) ANIMAL ORDER AND HOUSING INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Housing Facility:</td>
</tr>
<tr>
<td>Commercial Vendor Source:</td>
</tr>
<tr>
<td>Non-Commercial Vendor Source:</td>
</tr>
<tr>
<td>Only: Species</td>
</tr>
<tr>
<td>Strain/Stock:</td>
</tr>
<tr>
<td>Sex:</td>
</tr>
<tr>
<td>Weight Range/Age:</td>
</tr>
<tr>
<td>Cage Type/Cost Center:</td>
</tr>
<tr>
<td># Per Cage:</td>
</tr>
<tr>
<td>Unit Price:</td>
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<tr>
<td>Total Price:</td>
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<tr>
<th>4) HAZARDOUS MATERIALS INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will the study involve the use of hazardous or radioactive materials in animals that require special precautions?</td>
</tr>
<tr>
<td>Yes</td>
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</tbody>
</table>

If Yes, written notification must be submitted to the attending veterinarian three business days prior to use of a biohazard or infectious agent.

<table>
<thead>
<tr>
<th>5) ULAR USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Center:</td>
</tr>
<tr>
<td>ULAR Varnum Concurrence:</td>
</tr>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>ULAR Admin Concurrence:</td>
</tr>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Actual Vendor:</td>
</tr>
<tr>
<td>Vendor Area:</td>
</tr>
<tr>
<td>Animal Observations:</td>
</tr>
<tr>
<td># Animals Received:</td>
</tr>
<tr>
<td>ULAR Location House (Ekg/PM):</td>
</tr>
<tr>
<td>Animal Observations:</td>
</tr>
<tr>
<td>Received By (Name/Date):</td>
</tr>
<tr>
<td>P/U Contact Notified (Date/Time):</td>
</tr>
<tr>
<td>Contact By:</td>
</tr>
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<tr>
<th>6) Comments:</th>
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<td></td>
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<tr>
<th>7) Buyer Approval Signature</th>
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<tbody>
<tr>
<td>Buyer Approval:</td>
</tr>
<tr>
<td>Date Approved:</td>
</tr>
</tbody>
</table>

**Laboratory Animal Care and Use Program and Facilities**
Animal Procurement

- Reviewed for space available in vivarium

- And checked against the current Commercial Vendor listing for approval into the ULAR vivariums
Animal Procurement

And checked against the current Commercial Vendor listing for approval into the ULAR vivariums
Animal Procurement

Orders are then sent to the ULAR Animal Desk

• Checked against protocols and accounts and entered into Granite.

• Forwarded to purchasing at the Research Foundation.
Animal Procurement

Non Approved Rodent Orders are sent to the QA Import/Export desk for quarantine processing.
A health report is requested from the facility for a year's worth of testing data on the animal facility/room.

Hello,

We have received an animal order for mice to be shipped from Dr. ______ to Dr. _______ here at OSU.

Would you please send a health report for the room or colony where the animals are currently housed to animaltransport@uiar ohio-state.edu.

Our requirements are that the health report should include testing of serology and pathobiology and any information on micro or helminth you may have for the last year. Also include information on the housing/husbandry of the room and the sentinel program.

Excluded pathogens for entry into OSU are:

**Mice:** SEND (Sendai virus), PVM (Pneumonia virus of mice), MHV (Murine Hepatitis Virus), MVM (Murine virus of mice), MVEV (Murine enterovirus), REO (Reovirus), MPUL (Mycoplasma pulmonis), MPV (Murine parvovirus), EDIM (Epizootic Diarrhea of Infant Mice), LCNV (Lymphocytic Choriomeningitis Virus), MAV (Murine adenovirus FLUX77), ECTPO (Ectromelia virus), K (Murine pneumovirus), POLY (Polyoma virus), MLTV (Murine Thymic Virus), MCMV (Murine cytomegalovirus), HAMT (Hantavirus), ECLIN (Encephalitozoon Cuniculi), CARB (Cilia-associated respiratory virus), pinworms of the species Aspiculuris and Syphacia, and ectoparasites.

**Rats:** SEND, PVM, RCWSDA (Rat coronavirus-1), KYRV, RV (Klismos rat virus), H-1 (Toddy's H-1 virus), TMEV, REO, MPUL, LCNV, HAMT, MAV, ECLIN, CARB, RPV (Rat parvovirus), REV (Rat enterovirus), pinworms of the species Aspiculuris and Syphacia, and ectoparasites.

Please let us know if there is a MTA on this shipment, so we will be prepared to help in any way.

We will send approval for the shipment only after we receive the health report.

Laboratory Animal Care and Use Program and Facilities
Animal Procurement

We also check the type of transportation to be used.
Transporting Lab Animals

Regulations that Govern Animal Transport

1. Animal Welfare Act (AWA)
2. Public Health Service (PHS) Policy
3. The Guide
4. CDC
5. FDA
6. US Dept of Transportation
7. US Fish and Wildlife Service
8. Other Country Requirements
Transporting Lab Animals

AWA Governs-

1. Shipping Containers
   - Size
   - Material
   - # Animals per Container
   - Food/Water
   - Temperature Range- Ventilation
   - Cleanliness
Transporting Lab Animals

AWA Governs – (cont.)

2. Cargo/Terminal area
   – Temperature Range - Ventilation
   – Cleanliness

3. Delivery Vehicles
   – Climate controlled
   – Cleanliness
Transporting Lab Animals

Transportation- Types

• Trucking firms
• Commercial air carriers
• Special equipped vehicles
Receiving Animals

Receipt at the Institution

• Receiving Room - clean
• Check Vehicle shipping animals

Laboratory Animal Care and Use Program and Facilities
Receiving Animals

- Disinfect exterior surfaces before entering facility
- Check shipping box condition and verify shipment vs. Granite
Receiving Animals

Receipt at the Vivarium
• Pull up Granite, print cage cards
• Verify receipt vs. animal order

Receipt at the Room
• Verify animal numbers
• Examine animals (sex, sick, dead)
Receiving Animals

• Transfer information to records/cage cards
• Report any problems to the Supervisor
Quarantine of Incoming Animals

• All animals come into OSU are clean???
• Isolation
• Observation, testing, conditioning
• Quarantine Period is dependent on facility and species.
  – Rodents 6-8 wks
  – Non Human Primates 1- 2 months
  – Others vary by testing and previous health reports
• No experimental procedures (generally)
• Animals in quarantine should be handled after animals of known health status
Quarantine of Incoming Animals

• Animal Treatment
  – Health Exams
  – Diagnostic procedures
    • TB tests
    • Parasitology, bloodwork, microbiology
  – Prophylaxis - pinworm
    Fenbendazole feed
  – Treatment for existing pathogens- found on diagnostics
Quarantine of Incoming Animals

• Facility Design
  – Separate from colony (Isolation)
  – Negative pressure environment

WHY??

Laboratory Animal Care and Use Program and Facilities
Conditioning Period

- Allows for acclimatization before study begins
- Can be run at same time as Quarantine
- Stressed animals have hormones (adrenal) which can affect experimental data
• What does this refer to?
The types of organisms the animal is carrying
Microbiological Status

- **Axenic**
  - Means “germ-free”
  - Born by C-section (sterile)

- **Gnotobiotic (no-toe-by-ah-tic)**
  - Carefully defined microbial flora
  - All microbes present are known, usually given to the animal by mouth
Microbiological Status

- **Specific Pathogen Free (SPF)**
  - Certain disease (pathogen) eliminated

- **Barrier**
  - Different meanings to facilities
  - Known disease status
  - Sterile or non sterile equipment
Microbiological Status

Trexler ®
 Systems
 are used for both

Laboratory Animal Care and Use Program and Facilities
Microbiological Status

• Conventional
  – Raised in normal environment
  – Number and type of microbes unknown
Health Surveillance & Maintenance

- Animal Technician is the first line of defense

- Quality Assurance & Health Monitoring Program
  - Sentinel Program
  - Environmental Program
  - Large Animal Program
    - Vaccines/Physicals/ Updated testing
    - TB Testing