The new and improved
Researcher Training Program
Animal Research Community June 06, 2019
Agenda

• Changes to the Researcher Training Policy
• Competency Concept
• MAPS Interface
• Opinions, ideas, and feedback
Major Changes to the “Training Policy”

• “Working with the IACUC” will be required only once, not repeated every three years

• Formalize IACUC Member training

• Shift to AALAS Learning Library, away from TMS
  • Standardized training
  • Transfer transcripts to/from other universities
  • Course completion replaces lab-based training document and specific policy review
  • Available in over 100 languages (powered by Google Translator)
Major Changes to the “Training Policy”

• Medical surveillance is required for facility access
  • Senior PIs

• Competency concept

• Rodent Basic & Advanced Principles wet lab - more focused training experiences

• Removed requirements with less value
  • Use of Vertebrate Animals in Research, Teaching, or Testing
  • Etc.

• Emphasized training of higher value
  • Reporting welfare concerns
  • Reporting adverse events

• Overall, net reduction in training quantity with an increase in training quality
Competency Concept

All Program personnel training should be documented (Guide p. 15)

- ALL course completion is automatically documented
- Species-based “tracks”
- Competencies within each track build upon each other
- “Personal Profile” - training is focused on one’s role on the protocol
Example: Rodent User Training

- All Animal Users
  - IACUC Members
  - All Wildlife Users (Field Studies)
  - Species-/Procedure-Specific Training
- Rodent Basic
- Rodent Advanced (Anesthesia)
- Rodent Surgery
- Aquatics
- Aquatics Housing
- Aquatics Surgery
- NHPs
- NHP Anesthesia
- USDA Surgery
- USDA Anesthesia
- USDA Surgery
- Other USDA Species
- PI-Managed Housing & Direct Care
- Field Studies

All Animal Program Personnel
Previous Requirements for Rodent Users...

...What policy reviews are no longer expected to be specifically documented

- Discontinued as requirements
  - Emergency Response Instructions (post in lab)
  - Use of Vertebrate Animals in Research Teaching or Testing
  - Policy and Procedure to Follow for Injuries Associated with Laboratory Animals
  - Acclimation and Habituation
  - General Health - All Species

- Included in the Rodent Basic or Advanced Principles curriculum
  - Transportation of Animals Policies
  - Housing Policy: Mouse
  - Maintaining Colonies of Genetically Modified Animals Policy
  - Anesthesia Policy
  - Thermal Support of Anesthetized Rodents Policy
Previous Requirements for Rodent Users...

...What IACUC policy reviews are no longer expected to be documented

- Emergency Response Instructions (post in lab)
- Use of Vertebrate Animals in Research Teaching or Testing
- Policy and Procedure to Follow for Injuries Associated with Laboratory Animals
- Acclimation and Habituation
- General Health - All Species

REduced Requirements

- Covered in Rodent Basic or Advanced Principles class
  - Transportation of Animals Policies
  - Housing Policy's Mouse
  - Maintaining Colonies of Genetically Modified Animals Policy
  - Anesthesia Policy
  - Thermal Support of Anesthetized Rodents Policy
• All New* Research Staff
  • PIs
  • Post-docs
  • Students
  • Staff
• New IACUC Members
• OARS Staff

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with the IACUC *</td>
<td>Protocol approval (PI) or being approved as study staff</td>
<td>Current TMS course</td>
</tr>
<tr>
<td>Reporting Animal Welfare Concerns at Yale</td>
<td>Protocol approval (PI) or being approved as study staff</td>
<td>Policy review as part of lab-based training</td>
</tr>
</tbody>
</table>

* Everyone will take the ALL “Working with the IACUC” course once
• All New Research Staff
  • PIs
  • Post-docs
  • Students
  • Staff
• New IACUC Members
• OARS Staff

Training
- Must be completed before...
- Replaces...
- Working with the IACUC
- Protocol approval (PI) or being approved as study staff
- Current TMS course
- Reporting Animal Welfare Concerns at Yale
- Protocol approval (PI) or being approved as study staff
- Policy review as part of lab-based training

NO CHANGE IN REQUIREMENTS
• All personnel who routinely have contact with animals
  • Handling
  • Exposed in an open floorplan lab

• New IACUC Members

• OARS Staff

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Clearance</td>
<td>Acquiring facility access</td>
<td>Currently required</td>
</tr>
<tr>
<td>YARC Facility Training Part I &amp; II (YARC)</td>
<td>Acquiring facility access</td>
<td>Currently required</td>
</tr>
<tr>
<td>Euthanasia</td>
<td>Before conducting animal work</td>
<td>Policy review as part of lab-based training</td>
</tr>
<tr>
<td>Adverse Events</td>
<td>Before conducting animal work</td>
<td>Policy review as part of lab-based training</td>
</tr>
<tr>
<td>Pain Management of Lab Animals</td>
<td>Before conducting animal work</td>
<td>Two policy reviews for “Clinical Signs of Pain and Disease in Lab Animals” &amp; “General Health - All Species”</td>
</tr>
</tbody>
</table>
• All personnel who routinely have contact with animals
• New IACUC Members
• OARS Staff

• Medical clearance is required for anyone who is exposed to animals (bay-style labs) or needs facility access

Training: Must be completed before…
- Medical Clearance: Acquiring facility access
- YARC Facility Training Part I & II (YARC): Acquiring facility access
- Euthanasia: Before conducting animal work
- Adverse Events: Before conducting animal work
- Pain Management of Lab Animals: Before conducting animal work

Replaces…
- Medical Clearance: Acquiring facility access
- Euthanasia: Policy review as part of lab-based training
- Adverse Events: Policy review as part of lab-based training
- Pain Management of Lab Animals: Two policy reviews for “Clinical Signs of Pain and Disease in Lab Animals” & “General Health - All Species”

DECREASED REQUIREMENTS
• All *inexperienced* personnel who will be handling rodents

• Personnel managing breeding colonies (identification and genotyping procedures) and injecting rodents with compounds may “top-out” with the Rodent Basic competency

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Mice</td>
<td>Attending Rodent Basic Principles Wet Lab</td>
<td>Two policy reviews for “General Health - All Species” &amp; ”Housing - Mice”</td>
</tr>
<tr>
<td>-or- Introduction to Rats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodent Basic Principles Wet Lab</td>
<td>Working with live rodents alone</td>
<td>Currently required</td>
</tr>
</tbody>
</table>
All *inexperienced* personnel who will be handling rodents

Personnel managing breeding colonies (identification and genotyping procedures) and injecting rodents with compounds may “top-out” with the Rodent Basic competency

**NO NET CHANGE IN REQUIREMENTS**

- **Inexperienced users may be required to take two (2) wet lab training classes**
- **ALL “Intro” courses replace two policy reviews**

**Training**

- Introduction to Mice - Attending Rodent Advanced (Anesthesia)
- Introduction to Rats - Rodent Surgery
- Rodent Basic Principles Wet Lab - Working with live rodents alone

**Must be completed before...**

**Replaces...**

- Policy reviews for “General Health - All Species” & ”Housing -”
- Currently required
- All rodent users who will be performing complex procedures on rodents, including anesthesia.

- Accommodates experienced user more time learning “advanced procedures” and not waste wet lab time on basic handling.

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation Anesthesia Systems for Rodents</td>
<td>Attending Rodent Advanced Principles Wet Lab</td>
<td>Policy review for “Anesthetic Vaporizer and Ventilator Maintenance Policy” &amp; “Rodent Inhaled Anesthesia” course</td>
</tr>
<tr>
<td>Post-Procedural Care of Mice and Rats in Research: Minimizing Pain and Distress</td>
<td>Performing procedures, more complex than colony management activities, alone</td>
<td>Policy review for “Analgesia: Therapeutic Approaches for Attempting to Alleviate Pain and/or Distress”</td>
</tr>
<tr>
<td>Rodent Advanced Principles Wet Lab</td>
<td>Must be completed before performing advanced procedures, alone</td>
<td>Split-out from Rodent Basic Principles</td>
</tr>
</tbody>
</table>
• All rodent users who will be performing complex procedures on rodents, including anesthesia

• Accommodates experienced user more time learning “advanced procedures” and not waste wet lab time on basic handling

NO NET CHANGE IN REQUIREMENTS

- Inexperienced users may be required to take two (2) wet lab training classes
- ALL “Inhalation Anesthesia” course replaces a policy review and a class

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Procedural Care of Mice and Rats in Research: Minimizing Pain and Distress</td>
<td>Performing procedures, alone</td>
<td>Policy review for “Analgesia: Approaches for Attempting to Alleviate Pain and/or Distress”</td>
</tr>
<tr>
<td>Rodent Advanced Principles Wet Lab</td>
<td>Must be completed before performing advanced procedures, alone</td>
<td>Split-out from Rodent Basic Principles</td>
</tr>
</tbody>
</table>
All rodent users who will be performing survival surgery

Procedure monitoring will typically be conducted on one of the first few surgeries, but is not a pre-requisite for the first procedure

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Monitoring</td>
<td>Promptly</td>
<td>Currently part of the PAM program</td>
</tr>
<tr>
<td>Procedure-Specific Training (lab)</td>
<td>Before performing survival surgery, alone</td>
<td>Currently required</td>
</tr>
</tbody>
</table>
• All rodent users who will be performing survival surgery

• Procedure monitoring will typically be conducted on one of the first few surgeries, but is **not a pre-requisite** for the first procedure

<table>
<thead>
<tr>
<th>Training</th>
<th>Must be completed before...</th>
<th>Replaces...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aseptic Technique for Rodent Survival Surgery</td>
<td>Performing rodent survival</td>
<td>Policy review confirmation for “Surgery: Rodent, Survival and Non-Survival” &amp; “Aseptic Rodent Surgery” class</td>
</tr>
<tr>
<td>Procedure Monitoring</td>
<td>Promptly</td>
<td>Currently part of the PAM program</td>
</tr>
<tr>
<td>Procedure-Specific Training (lab)</td>
<td>Before performing survival surgery, alone</td>
<td>Currently required</td>
</tr>
</tbody>
</table>
Policy-related questions...

...before moving on to the MAPS training “module”?
The protocol content has identified the need for animal training competencies. One or more lab staff must have these competencies for the protocol to be approved.

### PROTOCOL REQUIRED COMPETENCIES

The content in the protocol has identified the need for the animal training competencies to be completed by one or more lab staff, all of which must be completed prior to working with those species or performing those procedures independently.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Count of Study Staff Trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Animal Program Personnel</td>
<td>3 of 3</td>
</tr>
<tr>
<td>All Animal Users</td>
<td>3 of 3</td>
</tr>
<tr>
<td>Rodent Basic</td>
<td>2 of 3</td>
</tr>
<tr>
<td>Species: Mouse</td>
<td></td>
</tr>
<tr>
<td>Species: Rat</td>
<td></td>
</tr>
<tr>
<td>Rodent Surgery</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Tumor Implantation</td>
<td></td>
</tr>
<tr>
<td>Rodent Advanced</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Isoflurane</td>
<td></td>
</tr>
</tbody>
</table>

Additional page at the end of the protocol entry form

- Required competencies, based on protocol SPECIES, PROCEDURES, and/or DRUGS listed in the protocol
### Study Staff Competencies

Review your study staff competencies not fulfilled and select all additional competencies that staff should complete for this protocol. The study staff will receive an email notification of this requirement.

<table>
<thead>
<tr>
<th>Study Staff</th>
<th>Completed Competency</th>
<th>Animal Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eve Moneypenny (view profile)</td>
<td>All Animal Program Personnel</td>
<td>Rodent Surgery, Introduction to Rats</td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td></td>
<td>Rodent Basic</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td>Bruce Borrows (view profile)</td>
<td>All Animal Program Personnel</td>
<td>Rodent Basic</td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td>Rodent Surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rodent Advanced</td>
</tr>
<tr>
<td>Emma York (view profile)</td>
<td>All Animal Program Personnel</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td></td>
<td>Rodent Basic</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td></td>
<td>Rodent Surgery</td>
<td>☐ (check if required)</td>
</tr>
<tr>
<td></td>
<td>Rodent Advanced</td>
<td>☐ (check if required)</td>
</tr>
</tbody>
</table>

- PI or lab manager confirms everyone’s role on the protocol by assigning competencies.
- When assigning, the person receives an email indicating new training requirements.
- PERSONAL PROFILE - completed training is linked to the person, not the protocol.
Review your study staff competencies not fulfilled and select all additional competencies that staff should complete for this protocol. The study staff will receive an email notification of this requirement.

### Study Staff Competencies

<table>
<thead>
<tr>
<th>Study Staff</th>
<th>Completed Competency</th>
<th>Animal Competencies</th>
<th>Competencies Not Fulfilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eve Moneypenny</td>
<td>All Animal Program</td>
<td>Rodent Surgery</td>
<td>(check if required)</td>
</tr>
<tr>
<td></td>
<td>Personnel</td>
<td>Introduction to Rats</td>
<td>(check if required)</td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodent Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bruce Borrowes</td>
<td>All Animal Program</td>
<td>Rodent Basic</td>
<td>(check if required)</td>
</tr>
<tr>
<td></td>
<td>Personnel</td>
<td>Rodent Surgery</td>
<td>(check if required)</td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td>Rodent Advanced</td>
<td>(check if required)</td>
</tr>
<tr>
<td>Emma York</td>
<td>All Animal Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All Animal Users</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodent Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodent Surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodent Advanced</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Eve may conduct colony management and administer compounds by injection in mice, but needs additional training prior to increasing her role or working with rats.
- Bruce may be listed on a protocol, but will require more training to work with live animals.
- Emma is considered fully trained to work with rodents.
Next Steps
...for the next few minutes and the next few months

Requesting volunteers for “PI Interface Design” user group
• How can we minimize effort, but still assure adherence to requirements?
• How can the training program be refined too provide more service to the research community?

• 8-12 members of the research community
• A few 1-hour roundtable discussions
• Reviewing screenshots and commenting over email