

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)



**LABORATORY-BASED ANIMAL CARE AND USE TRAINING
PERSONNEL PROFILE**

- It is necessary for the research team to have the knowledge and expertise for the specific animal procedures proposed and the species used.¹
- All lab-based personnel training should be documented and maintained in/by the laboratory.²
 - Under *Document Review*, include all IACUC policies that are related to the work this person will perform on the protocol.
 - Under *Procedures*, include all approved procedures that this person will perform on the protocol.

Name: [REDACTED] NetID: [REDACTED]
 PI: [REDACTED] Protocol: [REDACTED]

Document Review	Species	Date Reviewed
<i>Understanding of approved protocol, all relevant modifications, and special instructions</i>	NA	
<i>Review of other applicable policies and related documents – see below</i>	NA	

Policy Review: On the IACUC website <http://your.yale.edu/research-support/animal-research>, click on Policies, Procedures, Guidelines and Instructions and for the prompt to CAS log in.

[Reporting Animal Care and Use Concerns](#)
[Emergency Response Instructions](#)
[4444 - Use of Vertebrate Animals in Research, Teaching or Testing](#)
[4456 - Adverse Events](#)
[4438 - Policy and Procedure to Follow for Injuries Associated with Laboratory Animals](#)
[4400 - Acclimation and Habituation](#)
[4446 - Clinical Signs of Pain and Disease in Laboratory Animals](#)
[4479 - General Health – All species](#)
[4443 - Transportation of Animals Intra-Institutional](#)
[4414 - Euthanasia Policy, Guidelines and Procedures](#)
[4447 - Anesthesia Policy, Guidelines and Procedures](#)
[4402 - Anesthetic Vaporizer and Ventilator Maintenance Policy](#)
[4401 - Analgesia: Therapeutic Approaches for Attempting to Alleviate Pain and/or Distress](#)
[4407 - Surgery: Rodent, Survival and Non-Survival](#)
[4458 - Thermal Support of Anesthetized Rodents](#)
[4416 - Rodent Identification & Genotyping](#)
[4420 - Housing policy: Mouse](#)
[4440 - Single Housing of Rodents](#)
[4423 - Maintaining Colonies of Genetically Modified Animals](#)
[Blood Collection - Mice](#)

Procedures	Species	Date Trained
Breeding	Mouse	
Blood Collection (RO w/anesthesia)	Mouse	
Anesthesia - inhaled	Mouse	
Survival surgery (orthotopic pancreas injection; procedure monitoring with OARS specialist required before working independently)	Mouse	

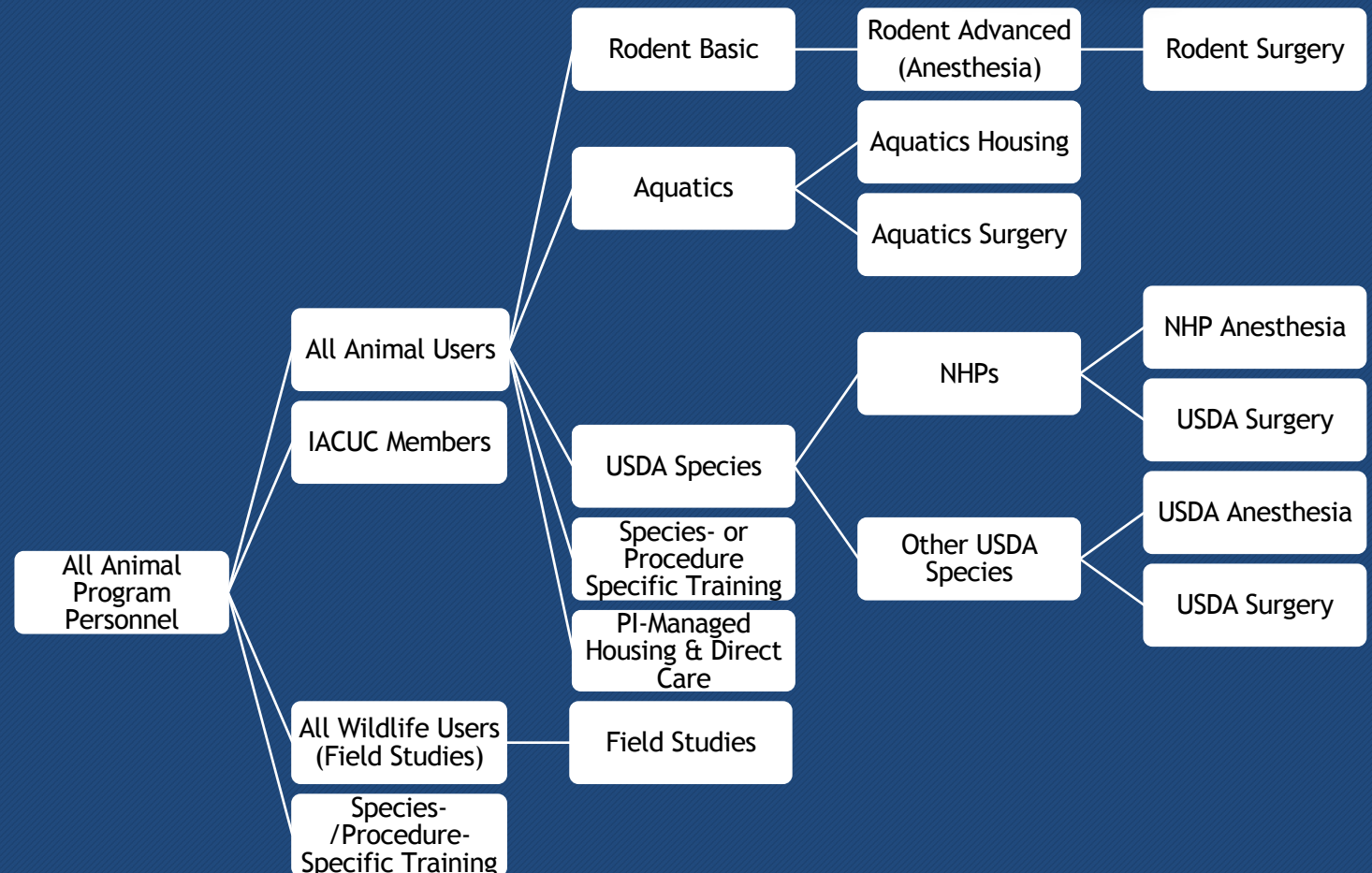
Major Changes to the “Training Policy”

- 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**

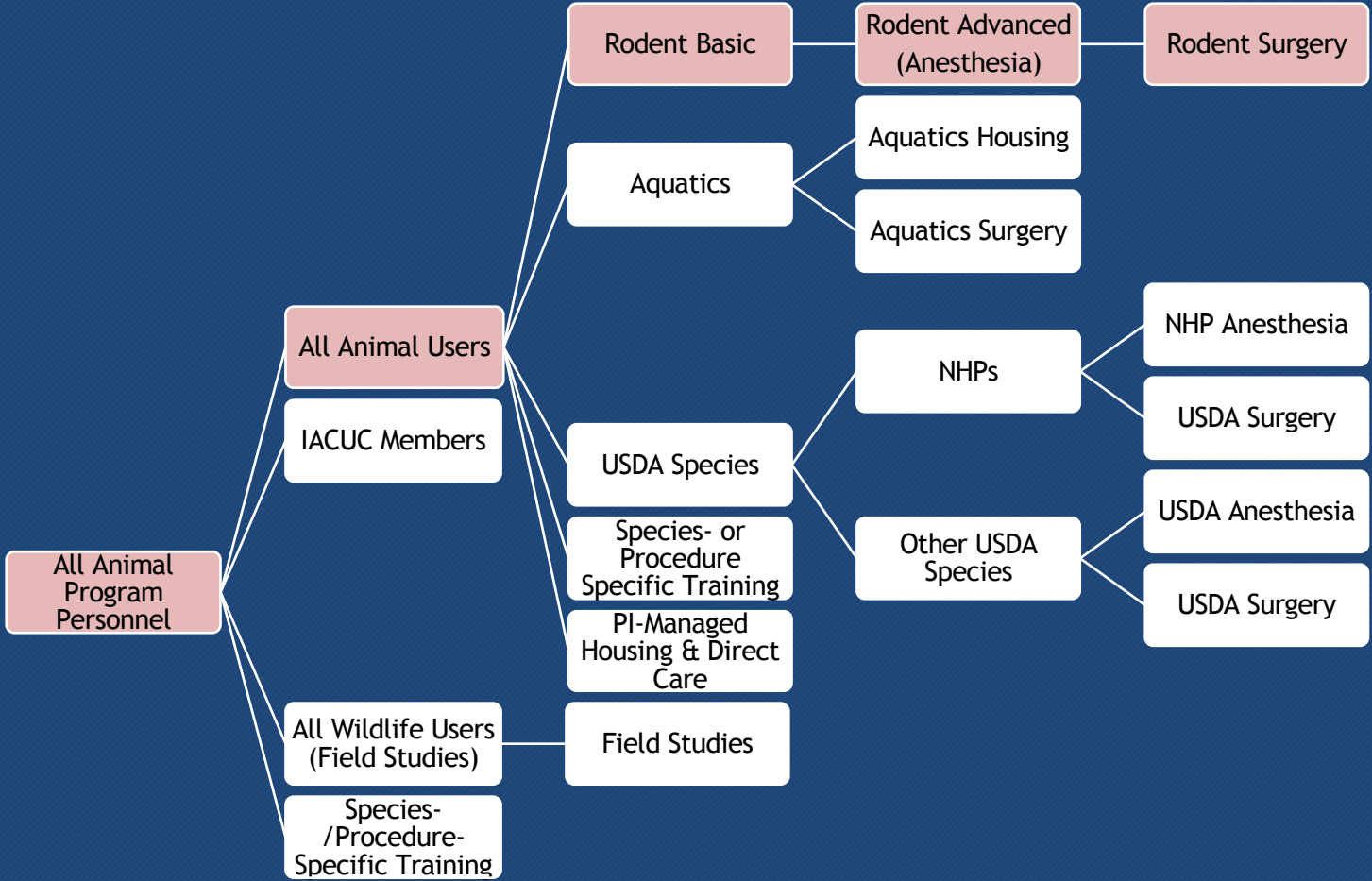
Competency Concept

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



Previous Requirements for Rodent Users...

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

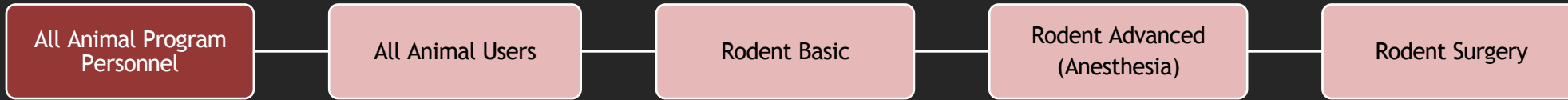
- **Discontinued as requirements**
 - Emergency Response Instructions (post in lab)
 - Use of Vertebrate Animals in Research Teaching or Testing
 - Policy and Procedure to Follow for Injuries Associated with Laboratory Animals
 - Acclimation and Habituation
 - General Health - All Species
- Included 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
- Covered in Rodent Basic or Advanced Principles class
 - Transportation of Animals Policies
 - Housing Policy: Mouse
 - Maintaining Colonies of Genetically Modified Animals Policy
 - Anesthesia Policy
 - Thermal Support of Anesthetized Rodents Policy

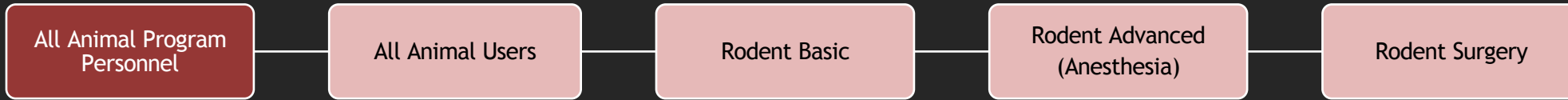
REDUCED REQUIREMENTS



- 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

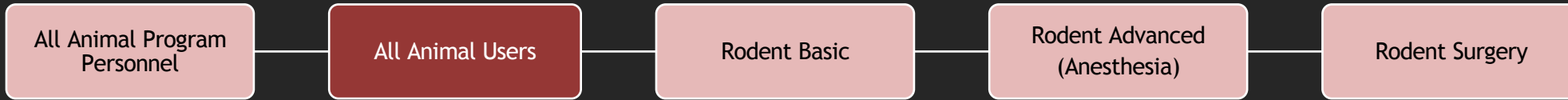
* Everyone will take the ALL “Working with the IACUC” course once



- All New Research Staff
 - PIs
 - Post-docs
 - Students
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- New IACUC Members
- OARS Staff

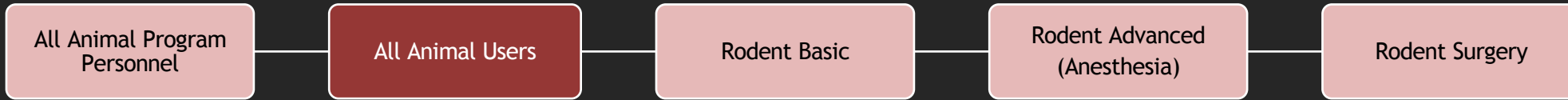
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NO CHANGE IN REQUIREMENTS



- All personnel who routinely have contact with animals
 - Handling
 - Exposed in an open floorplan lab
- New IACUC Members
- OARS Staff

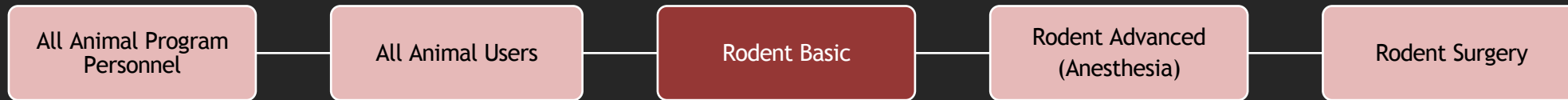
Training	Must be completed before...	Replaces...
Medical Clearance	Acquiring facility access	Currently required
YARC Facility Training Part I & II (YARC)	Acquiring facility access	Currently required
Euthanasia	Before conducting animal work	Policy review as part of lab-based training
Adverse Events	Before conducting animal work	Policy review as part of lab-based training
Pain Management of Lab Animals	Before conducting animal work	<u>Two</u> policy reviews for “Clinical Signs of Pain and Disease in Lab Animals” & “General Health - All Species”



- 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

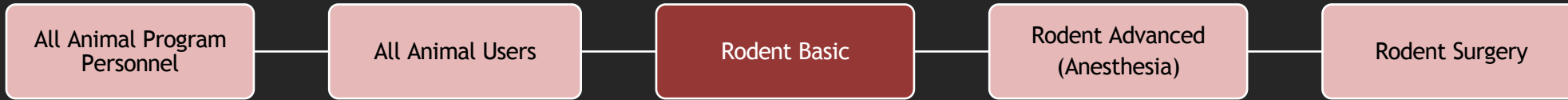
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Pain Management of Lab Animals	Before conducting animal work	Two policy reviews for "Clinical Signs of Pain and Disease in Lab Animals" & "General Health - All Species"

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

Training	Must be completed before...	Replaces...
Introduction to Mice -or- Introduction to Rats	Attending Rodent Basic Principles Wet Lab	<u>Two</u> policy reviews for “General Health - All Species” & “Housing - Mice”
Rodent Basic Principles Wet Lab	Working with live rodents alone	Currently required

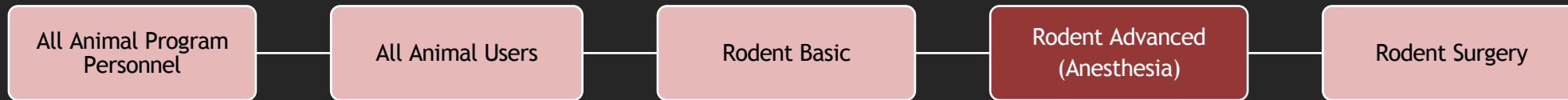


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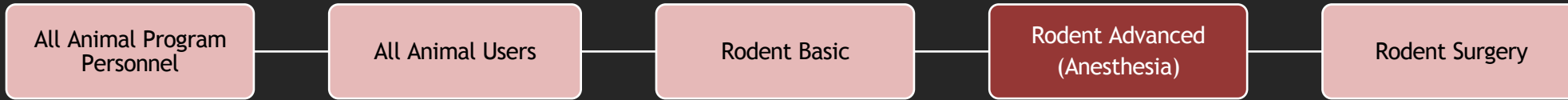
NO NET CHANGE IN REQUIREMENTS

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



- 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

Training	Must be completed before...	Replaces...
Inhalation Anesthesia Systems for Rodents	Attending Rodent Advanced Principles Wet Lab	Policy review for “Anesthetic Vaporizer and Ventilator Maintenance Policy” & “Rodent Inhaled Anesthesia” course
Post-Procedural Care of Mice and Rats in Research: Minimizing Pain and Distress	Performing procedures, more complex than colony management activities, alone	Policy review for “Analgesia: Therapeutic Approaches for Attempting to Alleviate Pain and/or Distress”
Rodent Advanced Principles Wet Lab	Must be completed before performing advanced procedures, alone	Split-out from Rodent Basic Principles

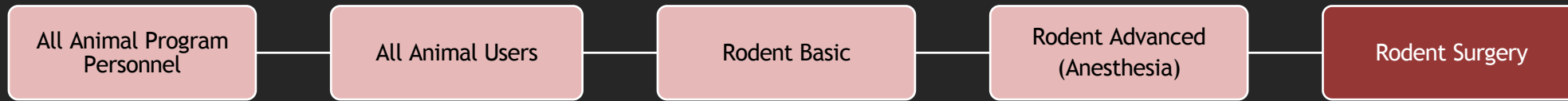


- All rodent users who will be performing complex procedures on rodents, including anesthesia
- Accommodates experienced user more time learning “advanced procedures” and not waste wet lab time on basic handling

Training	Must be completed before...	Replaces...
Inhalation Anesthesia Systems for Rodents	Attending Rodent Advanced Wet Lab	Policy review for “Anesthetic Vaporizer and Ventilator Maintenance Policy” & “Rodent Inhaled Anesthesia”
Post-Procedural Care of Mice and Rats in Research: Minimizing Pain and Distress	Performing procedures, alone	Policy review for “Analgesia: The proper approaches for Attempting to Alleviate Pain and/or Distress”
Rodent Advanced Principles Wet Lab	Must be completed before performing advanced procedures, alone	Split-out from Rodent Basic Principles

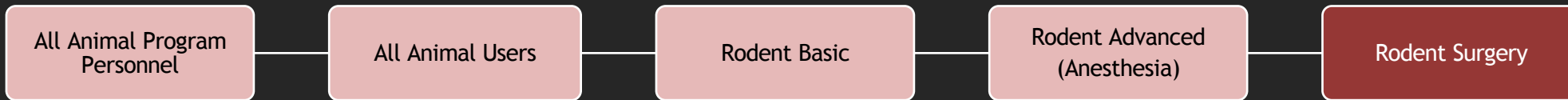
NO NET CHANGE IN REQUIREMENTS

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



- 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

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



- 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

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

DECREASED REQUIREMENTS



Policy-related questions...

...before moving on to the MAPS training “module”?

MAPS Training Module Interface

What competencies are required for the protocol

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.

Competency	Count of Study Staff Trained
All Animal Program Personnel	3 of 3
All Animal Users	3 of 3
+ Rodent Basic	2 of 3
Species: Mouse	
Species: Rat	
+ Rodent Surgery	1 of 3
Tumor Implantation	
+ Rodent Advanced	1 of 3
Isoflurane	

• Additional page at the end of the protocol entry form

• Required competencies, based on protocol SPECIES, PROCEDURES, and/or DRUGS listed in the protocol

MAPS Training Module Interface

Training completed/needed for protocol-associated staff

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.

Study Staff	Animal Competencies	
	Completed Competency	Competencies Not Fulfilled
Eve Money Penny (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users <input checked="" type="checkbox"/> Rodent Basic	Rodent Surgery <input type="checkbox"/> (check if required) Introduction to Rats <input type="checkbox"/> (check if required)
Bruce Barrows (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users	Rodent Basic <input type="checkbox"/> (check if required) Rodent Surgery <input type="checkbox"/> (check if required) Rodent Advanced <input type="checkbox"/> (check if required)
Emma York (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users <input checked="" type="checkbox"/> Rodent Basic <input checked="" type="checkbox"/> Rodent Surgery <input checked="" type="checkbox"/> Rodent Advanced	

- 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

MAPS Training Module Interface

Training completed/needed for protocol-associated staff

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.

Study Staff	Animal Competencies	
	Completed Competency	Competencies Not Fulfilled
Eve Money Penny (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users <input checked="" type="checkbox"/> Rodent Basic	Rodent Surgery <input type="checkbox"/> (check if required) Introduction to Rats <input type="checkbox"/> (check if required)
Bruce Barrows (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users	Rodent Basic <input type="checkbox"/> (check if required) Rodent Surgery <input type="checkbox"/> (check if required) Rodent Advanced <input type="checkbox"/> (check if required)
Emma York (view profile)	<input checked="" type="checkbox"/> All Animal Program Personnel <input checked="" type="checkbox"/> All Animal Users <input checked="" type="checkbox"/> Rodent Basic <input checked="" type="checkbox"/> Rodent Surgery <input checked="" type="checkbox"/> Rodent Advanced	

- 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