Use of Animals in Research

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Office of Laboratory Animal Medicine
Animal Research

- Laboratory animals are an integral part of the research process
- Virtually every major medical advance in the last century is due, in part, to research with animals
- Good animal care and good science go hand-in-hand
Regulations

- Animal Welfare Regulations [Title 9 CFR, Subchapter A, Animal Welfare, Parts 1, 2 and 3]
- PHS Policy on Humane Care and Use of Laboratory Animals, 2002
- AVMA Guidelines on Euthanasia, 2007
- Guide for the Care and Use of Laboratory Animals (Guide) [NRC, 8th Ed., 2010]
- NIH Grants Policy Statement (03/01), Part II: Terms and Conditions of NIH Grant Awards Subpart A: General -- Part 2 of 7
Animal Welfare Act (AWA)

- Series of laws regulating animal use activities
- Enforcement is through the United States Department of Agriculture (USDA), and the Animal and Plant Health Inspection Service (APHIS)
- Violation of the Act is punishable under federal law and may lead to research program suspensions, fines and/or imprisonment
- Animal Welfare Act Regulations (AWAR) provide more detail as to the care and use of regulated animals
Public Health Service (PHS)

- Policy on Humane Care and Use of Research Animals
- Applicable when research involving animals is funded by the PHS
- The Office of Laboratory Animal Welfare (OLAW), a part of the National Institutes of Health (NIH), administers the PHS Policy through the Research Extension Act
- Deviation from PHS Policy may result in loss of funding from PHS organizations
Regulations & Policies Ensure

- Animals are used in research only when it is absolutely necessary
- When animals are used in research, they are used humanely
Office of Laboratory Animal Medicine (OLAM)

- Dedicated to the care and well-being of research animals at UD
- Provides and properly maintains the animals used in approved research
- Provides specialized resources, services, and consultation
- Provides information and training
OLAM Technical Services, Assistance, and Training

- Anesthesia
- Animal Handling
- Animal Monitoring
- Antibody Production
- Blood Collection
- Breeding
- Injections
- Radiology
- Specialized Animal Care
- Specialized Procedures
- Surgery
- Tissue Collection
Institutional Animal Care and Use Committee (IACUC)

- Federally mandated committee
- Required for institutions that use animals for research or institutional purposes
- Oversees and evaluates all aspects of the Institutional Animal Care and Use Program
IACUC Responsibilities

- Review of IACUC Protocols, Annual Reviews, and Amendments
- Semiannual Facilities Inspection
- Semiannual Program Review
- Submit Semiannual Report of the Facilities Inspection and Program Review to the Institutional Official (IO)
- Make Recommendations to the IO regarding any aspect of the Research Facilities, Animal Programs, Physical Plant, or Personnel Training
- Review and Investigate any Animal Welfare Concerns
- Suspend (when warranted) any Research, Testing, or Training Procedures Involving Animals
- Perform other duties as required by law
Definition of “Animal”

- **PHS** - Any *live vertebrate* animal used or intended for use in research, research training, experimentation, biological testing, or for related purposes

- **AWA** - Any *live warm-blooded vertebrate* used or intended for use in research, teaching, or testing

  **AWA Excludes**
  - *Farm animals used for agricultural research*
  - *Rats, mice and birds bred for research*
Animal Use Protocol

Required:

- For the use of *Live Vertebrate* Animals for Research, Teaching, or Testing

Not Required:

- Invertebrates
- Eggs (fertilized, early stages of development)
- Tissue cultures
Animal Use Protocols

Designed by the individual institution but must meet Federal and Institutional Requirements

- **Protocols** - limited to 3 years then must be resubmitted (de novo)

- **Annual Reviews** - must be submitted and approved to continue work

- **Amendments** - must be submitted and approved to modify work

[http://www.udel.edu/research/researchers/policies-forms.html](http://www.udel.edu/research/researchers/policies-forms.html)
Training and Proficiency

- The IACUC requires that all personnel handling live animals are appropriately qualified and trained to perform their duties:
  - Animal Facilities Training
  - Species-Specific Training
  - Procedure-Specific Training
  - May be required to Demonstrate Proficiency
Important Information for Animal Researchers

www.labmice.co.uk
Pain and Distress

- Avoidance of, or relief from pain or distress is very important

- Use of pain relieving drugs (analgesics) is required for all potentially painful procedures unless scientifically justified
Adverse Event Reporting

- Any unexpected adverse event that results in:
  - Increased pain
  - Increased distress
  - Increased death rates
  - Must be reported to the IACUC
Compliance

- Know the rules and obey the rules

- Failure to follow an approved protocol can result in loss of an individual’s or institution’s privilege to do animal research!
Animal Welfare

- Protect Animal Welfare
  If you observe or suspect animal abuse, mistreatment, or non-compliance with federal, state, or local regulations or non-compliance with an approved protocol, please report the incident to the IACUC
The IACUC will review and investigate all concerns raised regarding the care and use of animals at the University.

Reports are confidential.

Animal abuse or neglect will not be tolerated.
Remember

- Approval must be obtained from the IACUC before any work can be initiated or modified.

- If approval is withheld or withdrawn by the IACUC, then NO research can be conducted on that protocol.

- The use of animals in research is a privilege, not a right.
We have a moral and legal responsibility to treat research animals humanely.

Respect the Behind the Scene Heroes.
Contact Information

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IACUC Coordinator:
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# Commonly Used Acronyms

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<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>APHIS</td>
<td>Animal and Plant Health Inspection Service (USDA)</td>
</tr>
<tr>
<td>AUP</td>
<td>Animal Use Protocol</td>
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<tr>
<td>AWA</td>
<td>Animal Welfare Act (USDA)</td>
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<tr>
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<tr>
<td>IACUC</td>
<td>Institutional Animal Care and Use Committee</td>
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<td>IO</td>
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<td>NIH</td>
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<td>PHS</td>
<td>Public Health Service</td>
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<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>USDA</td>
<td>United States Department of Agriculture</td>
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