Institutional Animal Care & Use Committee (IACUC)

Heidi Levin
Senior Coordinator
The IACUC Office – Office for Research
h-levin@northwestern.edu
Humans and animals have many comparable physiological processes. Genetically modified animals, usually mice, can be bred to increase these similarities with humans.

**Basic** research (compared to **applied**) provides the underpinnings for development of new medical and veterinary treatments.

New medical treatments are required by law to be tested on animals before entering human clinical trials.
For example:

- In the early 20th century, most medical professionals suspected polio was an infectious disease, but had little proof. In 1908, investigators used extracts from the spinal cord of a boy who had died from polio to replicate the disease in monkeys. In 1955, announcement came of a successful polio vaccine for humans.

- In the 1970s, armadillos were used to develop antibiotic treatments and vaccines for leprosy.

- Today cats are used to understand deafness and to develop effective therapies to treat it.
Why is there an IACUC?

- To regulate the use of animals in research
- To provide protections for animals used in research
- To assure ethical standards of research with animals are maintained

The IACUC ensures research personnel are trained to conduct animal research *in a humane manner.*
The IACUC balances the possible harm to an animal against the potential benefit of the research involving each animal.

The IACUC makes recommendations to improve animal welfare. Better standards of animal welfare produce better quality research.
The IACUC encourages investigators to discover **alternative methods** when applicable by:

- **Replace** animals with other research methods
- **Refine** procedures to minimize potential pain/distress
- **Reduce** animal numbers
Regulatory Agencies

Organizations ensuring humane care and use of animals in research:

• The United States Department of Agriculture (USDA)

• The Public Health Service (PHS)

• The Office of Laboratory Animal Welfare (OLAW)

Northwestern has chosen to request accreditation from the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC)
COMPONENTS OF AN ANIMAL CARE AND USE PROGRAM

INSTITUTIONAL LEADERSHIP

PI RESPONSIBILITY

Animal Welfare

IACUC

QUALITY ANIMAL CARE ATTENDING VETERINARIAN

Animal Welfare
The IACUC Office Personnel

- Director
- Laboratory & Facility Inspection Coordinator
- Administrative Coordinators
- Post Approval Monitoring Coordinator
- Post Approval Monitoring Department Assistant
- Department Assistant

Animal Subject Protection
## IACUC and CCM

<table>
<thead>
<tr>
<th>Center for Comparative Medicine (CCM)</th>
<th>Institutional Animal Care and Use Committee (IACUC)</th>
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<tbody>
<tr>
<td>• Maintains animal facilities on both campuses</td>
<td>• Reviews research protocols on both campuses</td>
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<td>• Provides veterinary care to animals</td>
<td>• Evaluates the animal care program</td>
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<td>• Inspects the central animal facilities and labs where animals are used twice a year</td>
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Training

TRAINING AND OCCUPATIONAL HEALTH SAFETY PROGRAM

PROTOCOL REQUIREMENTS FOR PERSONNEL APPROVAL

- Anyone seeking facility access (CCH) or having contact with animals must be listed on an approved protocol.
- All principal investigators and research staff handling and caring for animals are required to take the basic IACUC Online Training and Occupational Health Safety Program (OHSP) Training. Please see below.

GETTING STARTED

There are three necessary steps to getting started in the IACUC: IACUC Online Training, Occupational Health Training and training on the electronic IACUC system, eIACUC.

1. IACUC ONLINE TRAINING

All training modules must be completed by EACH individual listed on an animal study protocol or an addendum prior to the document being submitted to the IACUC.

- Contact Bruce Roberts at 312-603-9339 or 312-603-2618 or by e-mail at br: roberts@northwestern.edu. Provide the spelling of your name and he will assign a Username and Password. You will then have a Northwestern University account with AALAS Learning Library, which you will need in order to take classes.

- To take classes, click on "Animal Care and Use Courses". This page contains tracks of courses for Northwestern University animal users. The tracks contain required courses for each species as well.

http://www.research.northwestern.edu/oprs/acuc/training.html
Review: How It Works

Protocols are reviewed by Designated Review or the Full Committee

- **Designated Reviews** are completed by at least two committee members and a veterinarian

- **Full Committee Review** involves primary and secondary reviewers presenting to the full committee
IACUC Review Process

PI submits the study application to the IACUC

Application reviewed by IACUC coordinator for completeness

Application is assigned to Designated or Full Committee review

Application may require clarification or modification

Application is approved

If necessary

Application is returned to the PI for revisions and resubmission

Revised application is returned to the IACUC for re-review

Process continues until Reviewers are satisfied

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PI Action is Required

IACUC Action
IACUC Approval

• The IACUC approves protocols for a three year period, even if sponsored funding is for a longer term.

• Protocols involving work with **USDA covered species** must be submitted for annual re-certification.

• A **de novo protocol** must be submitted to the IACUC prior to the end of the three year approval period to avoid inactivation.
What Does It Mean to Be Approved?

The project may begin!

• The PI may order animals (through CCM)

• Project personnel may gain access to the animal facilities (through CCM)

• The PI works with OSR to open accounts to spend their grant money
A Numerical Summary

In the last 12 months, the IACUC approved approximately:

- 347 new protocols
- 525 addenda requests

Approximately 900 protocols are active
June 2015 Census

Total Mice and Rats

- Rats
- Mice
Questions?

Contact ACUC:

Phone: (312) 503-9339
Email: acuc@northwestern.edu