Institutional Animal Care & Use Committee (IACUC)

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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)
IACUC Shared Responsibility

- Institutional Responsibility
- PI/Research Team Responsibility
- CCM Responsibility
- IACUC Responsibility
- Humane Treatment of Animals
The IACUC Committee

- Faculty
- Veterinarian
- Community Members
- Office for Research Reps
- Office for Research Safety
- Expert Consultants

Animal Subject Protection
The IACUC Office Personnel

- Director
- Administrative Coordinators
- Animal Subject Protection
- Laboratory & Facility Inspection Coordinator
- Post Approval Monitoring Coordinator
- Department Assistant
- Post Approval Monitoring Department Assistant
IACUC and CCM

**Center for Comparative Medicine (CCM)**
- Maintains animal facilities on both campuses
- Provides veterinary care to animals

**Institutional Animal Care and Use Committee (IACUC)**
- Reviews research protocols on both campuses
- Evaluates the animal care program
- Inspects the central animal facilities and labs where animals are used twice a year
Training & Occupational Health Safety Program

**PROTOCOL REQUIREMENTS for PERSONNEL APPROVAL**

IACUC Training Services and Occupational Health Safety Program (OHSP)

All project investigators and research staff handling and caring for animals are required to take the basic IACUC on-line training and be enrolled in the Occupational Health and Safety Program (OHSP). In addition, anyone seeking facility access (CCM) or having contact with animals must be listed on an approved protocol.

**Training Services**

All Principal Investigators (PIs) and research personnel must complete the basic on-line training provided through the AALAS Learning Library.

- Contact Bruce Roberts at OPRS/IACUC at 312-503-9339 or 312-503-2618 or by e-mail at b-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.
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

PI Action is Required

IACUC Action

Revised application is returned to the IACUC for re-review

Process continues until Reviewers are satisfied

If necessary
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:

- 280 new protocols
- 840 addenda requests

Approximately 800 protocols are active
June 2015 Census

Total Mice and Rats

- Rats
- Mice
Questions?

Contact ACUC:

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