

*Responsible Conduct of
Research: Animal Ethics and
Animal Use*

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Topics of Discussion

- Role of Institutional Animal Care and Use Committee (IACUC)
- Role of Regulatory Agencies in Biomedical Research Involving Animals
- Historical Evolution of Animal Use in Teaching and Research
- Opposition to Animal Research
- Requirements for Personnel Using Animals in Research at UNC-Chapel Hill

Introduction

“Perhaps no issue, with the exception of abortion, has generated more heated controversy than the appropriate use of laboratory animals. Consequently, the care and use of laboratory animals is among the most strictly regulated industries in the country, ranking close behind air traffic safety and the manufacture of safe drugs, devices, biologics, and food products.”

Animal Welfare Act

- Established in 1985
- Institutions must ensure appropriate care and use of vertebrate animals utilized in research and/or teaching
- Establishment of Institutional Animal Care and Use Committee (IACUC)

United States Department of Agriculture (USDA)

- Animal Welfare Act
- Covered species: cats, dogs, non-human primates, guinea pigs, hamsters, rabbits
- Unannounced Annual Site Inspections
- Review randomly selected Animal Use Applications
- Randomly inspect laboratories conducting research in a covered species

Office of Laboratory Animal Welfare (OLAW)

- Branch of NIH - administers and coordinates the *Public Health Service Policy on the Humane Care and Use of Laboratory Animals*
- Animal Welfare Assurance Statement
- Institutional commitment to the humane use of research animals
- PHS must approve written Assurance prior to animal use
- Applies to all live vertebrate animals

Association for the Accreditation and Assessment for Laboratory Animal Care International (AAALAC)

- Non-regulatory consulting organization
- Conducts rigorous evaluation of institution's animal care and use program and animal facilities
- Evaluates program every three years
- Provides written evaluation with mandatory and suggested items for correction



“The feeling that animal research is inherently cruel and unnecessary unfortunately persists in the public domain.”

Alan Goldberg, Ph.D., Johns Hopkins
University Center for Alternatives to
Animal Testing

PETA Website

Viewer Question:

Most scientists care about animals--don't they have to because their research depends on the animals' well-being?

PETA Response:

Many experimenters become callused after years of research and don't see the animals' suffering--they treat animals as disposable tools for research. Improvements in the animals' care are fought as "too expensive."

Public Knowledge

- Publicly funded research
- Freedom of Information Act (FOIA)
- NC Public Records Law
- IACUC Animal Care Application (ACAP)

Public Information

- NC Open Meetings Law
- NC policy - hearings, deliberations, and actions of public bodies must be conducted openly
- IACUC monthly meeting and minutes are public documents

“Researchers should assume that others besides their peers may read their grants. These other individuals may hold a different philosophy about the use of animals.”

Andrew Monjan, Ph.D., National Institute of Aging

Informing the Public

- Accurate description of research
- Proactively control direction of discussion
- Educate the public - may not have understanding of nature and context of the research
- Garner positive support from public and press
- Answer public's questions and address potential concerns of animal welfare

Public Perception

Helping new researchers and animal care personnel develop a positive attitude toward how the facility uses animals in research may help alleviate ethical concerns that they may have about animal research in general.

Allegations Pertaining to Animal Welfare Abuse

- IACUC is mandated to investigate all allegations pertaining to abuses of animal welfare
- Negligent IACUC or misuse of animals by research staff jeopardizes animal research and funding at the entire institution
- Commitment in Animal Welfare Assurance
- IACUC acts as an agent of the regulatory bodies

Investigations of Animal Abuse

- Huge commitment of time, effort, and money
- Collection of pertinent documents, animal records, research data
- Examination of animals
- Interviews with research staff
- Halting of research activities

Closure of Investigation

- Report findings to USDA (in covered species)
- Report to OLAW
- Report to other pertinent funding agencies
- Documentation of abuse can result in cessation of animal research for PI or for entire institution

Historical Perspective

- Fourth Century B.C. – Aristotle
- Second Century A.D. - Galen, Greek physician
- *Renaissance* late 1500s and early 1600s
- *Scientific Revolution* 1600 and 1700s (Harvey, Descartes, van Leeuwenhoek)

Cartesian Principles

Animals are no different than machines and are incapable of thinking or feeling.

“The greatest of all the prejudices we have retained from our infancy is that of believing that the beasts think.”

Rene Descartes

Prior to the discovery of anesthesia in 1846, all animal experimentation was conducted without any pain-relieving measures. Even after the development of anesthesia, vivisection was often performed without pain relief of any kind.

British Roots

- Concerns with Cartesian Principles
- Utilitarian Philosophers
- Jeremy Bentham (1748-1832)
- John Stuart Mill (1806-1873)

Jeremy Bentham

“...a full-grown horse or dog is beyond comparison a more rational, as well as a more conversable animal, than an infant... But suppose the cause were otherwise...? The question is not, can they *reason*? Nor, can they *talk*? But can they *suffer*?”

Introduction to the Principles of Morals and Legislation,
1789

British Roots

- Royal Society for the Prevention of Cruelty to Animals (RSPCA) 1824
- Victorian Era (1837-1901)
- Cruelty to Animals Act - 1876
- Animal Liberation Front (ALF) 1972

American Endeavors

- American Society for the Prevention of Cruelty to Animals (ASPCA) - Henry Bergh
1866
- 1870 New York state passed legislation making animal cruelty a misdemeanor
- 1877 American Humane Association

American Endeavors

- 1866 & 1880 antivivisection bills failed in US Congress
- 1883 Caroline Earle White - founded first American Antivivisection Society
- 1908 Council on Defense of Medical Research

American Endeavors

- Ruth Harrison - “Animal Machines”
- Jane Goodall
- 1969 Endangered Species Act
- 1960s Civil Rights Movement

Henry Spira



- One of most effective animal rights activists in past 20 years
- Proposed positive outcomes for opponents while also advancing his own causes

Henry Spira's Blue Print for Change

- Don't divide world into saints and sinners. Leads to time-wasting and unproductive speculation about adversaries' motives, when real issue is moving forward.
- Seek dialogue and attempt to work together to solve problems. Position issues as problems with solutions. Present realistic alternatives.
- Never deceive media or public. Maintain credibility, don't exaggerate or hype issues.

People for the Ethical Treatment of Animals

- Alex Pacheco and Ingrid Newkirk founded PETA in the 1980s
- Very powerful, vocal, wealthy lobbying group
- Large public following

PETA



- Ingrid Newkirk, President
- “If a cure for aids resulted through animal research, I would be against it.”
- “A rat is a dog is a child”
- Opposed to animal research of any kind

Animal Protectionism

- 1979 Animal Legal Defense Fund (ALDF)
- Animal Rights versus Animal Welfare

Animal Terrorism

- Violent methods to stop all forms of animal use
- Destruction of research facilities
- Threats against scientists and family members
- “I hope it frightens the researchers out of their careers.” *Ingrid Newkirk (PETA)*
- Animal Liberation Front (ALF)

Biomedical Research Advocates

- **National Association for Biomedical Research**
- **North Carolina Association for Biomedical Research (NCABR)**
- **Americans for Medical Progress (AMP)**
- **Foundation for Biomedical Research**

Two Sides of the Issue

“None of this could have been done without animal experimentation. It’s a tragedy and a waste of resources that scientists have to combat the anti-vivisectionists.” Joseph Murray, M.D. upon receiving the 1990 Nobel Prize in Medicine

“If the death of one rat cured all diseases, it wouldn’t make any difference to me.”

Chris De Rose, Director, Last Chance for Animals

Sir Peter Medawar 1972



“Nothing but research on animals will provide us with the knowledge that will make it possible for us, one day to dispense with the use of them altogether.”

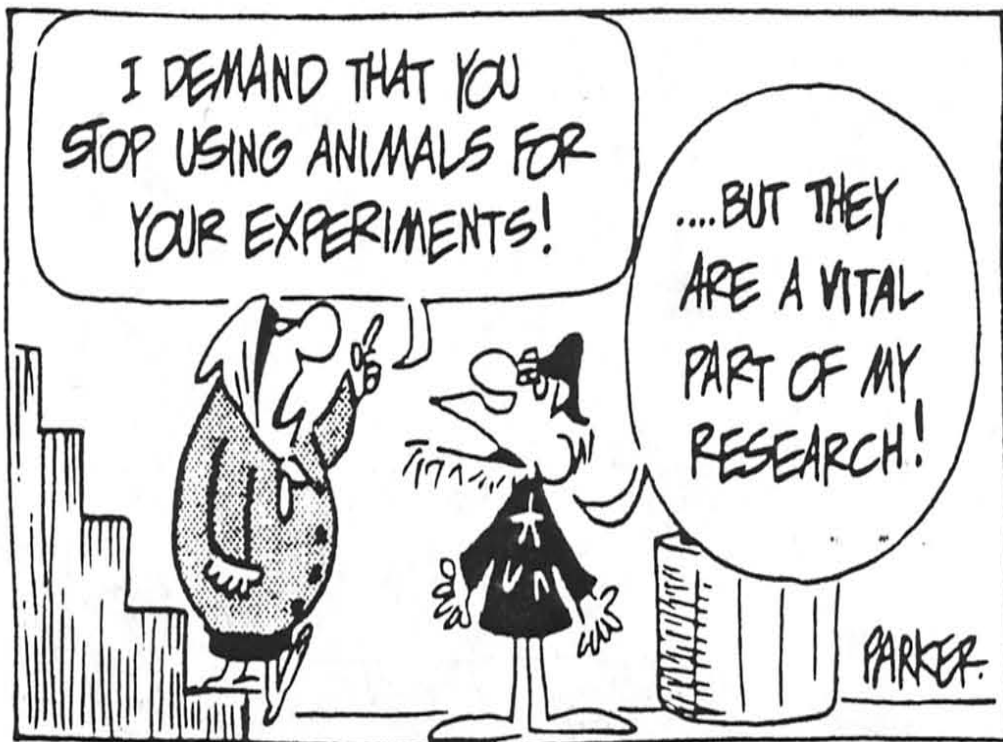
Nobel Laureate in Immunology

Present Policies Requiring Animal Research

- Nuremberg Code - Any experiments on humans “should be designed and based on the results of animal experimentation.”
- Declaration of Helsinki, 1964 - Medical research on human subjects “should be based on adequately performed laboratory and animal experimentation.”

THE WIZARD OF ID

by Brant parker and Johnny hart



UNC-Chapel Hill Requirements for Using Animals in Research

- **IACUC Orientation** - investigators and everyone working with animals (every 3 years)
- **DLAM Orientation** - all users of DLAM facilities (every 3 years)
- Access requires ONYEN or SOM ID and completion of the following:
 - Research Profile
 - Lab Worker Registration form
 - Animal Handler Profile [if exposed to or handling animals.]
- <http://research.unc.edu/iacuc/orientation.php>

DLAM Facility Access Requirements

- Research Profile
- Animal Handler Profile (update annually)
- Lab Worker Registration Form
- IACUC online orientation
- Certification in all required handling techniques
- Listed on an approved IACUC Application
- DLAM online orientation
- DLAM Building Tour with Building Supervisor
- Contact Randy Allen for facility card access: 843-0737

Species Specific and Survival Surgery Techniques

- Rat Handling Class (1 class/month)
- Mouse Handling Class (2 classes/month)
- Aseptic Technique Class (1 class/month)

http://research.unc.edu/iacuc/training_overview.php

Additional Requirements

- Laboratory Animal Coordinator (LAC) Certification
- Mouse Breeder Policy Lecture
- Laboratory Inspections
- Surgical Procedure Inspections
- Departmental Information Sessions (every 2 years)

Optional Training

- Mouse Colony Management
- One-on-One Hands on Training every Monday afternoon

Office of Animal Care and Use

- Bioinformatics Building Suite 1140
- IACUC Administration – 966-5569
- Training and Compliance – 843-9258
- iacuc@med.unc.edu
- <http://research.unc.edu/iacuc/>



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Virtually every medical achievement of the last century has depended directly or indirectly on research in animals

US Public Health Service