

Author(s): Kathleen A. Stringer, Pharm. D, 2011

License: Unless otherwise noted, this material is made available under the terms of the **Creative Commons Attribution–Share Alike 3.0 License:**

<http://creativecommons.org/licenses/by-sa/3.0/>

We have reviewed this material in accordance with U.S. Copyright Law **and have tried to maximize your ability to use, share, and adapt it.** The citation key on the following slide provides information about how you may share and adapt this material.

Copyright holders of content included in this material should contact open.michigan@umich.edu with any questions, corrections, or clarification regarding the use of content.

For more information about **how to cite** these materials visit <http://open.umich.edu/education/about/terms-of-use>.

Any **medical information** in this material is intended to inform and educate and is **not a tool for self-diagnosis** or a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional. Please speak to your physician if you have questions about your medical condition.

Viewer discretion is advised: Some medical content is graphic and may not be suitable for all viewers.

Citation Key

for more information see: <http://open.umich.edu/wiki/CitationPolicy>

Use + Share + Adapt

{ Content the copyright holder, author, or law permits you to use, share and adapt. }



Public Domain – Government: Works that are produced by the U.S. Government. (17 USC § 105)



Public Domain – Expired: Works that are no longer protected due to an expired copyright term.



Public Domain – Self Dedicated: Works that a copyright holder has dedicated to the public domain.



Creative Commons – Zero Waiver



Creative Commons – Attribution License



Creative Commons – Attribution Share Alike License



Creative Commons – Attribution Noncommercial License



Creative Commons – Attribution Noncommercial Share Alike License



GNU – Free Documentation License

Make Your Own Assessment

{ Content Open.Michigan believes can be used, shared, and adapted because it is ineligible for copyright. }



Public Domain – Ineligible: Works that are ineligible for copyright protection in the U.S. (17 USC § 102(b)) *laws in your jurisdiction may differ

{ Content Open.Michigan has used under a Fair Use determination. }



Fair Use: Use of works that is determined to be Fair consistent with the U.S. Copyright Act. (17 USC § 107) *laws in your jurisdiction may differ

Our determination **DOES NOT** mean that all uses of this 3rd-party content are Fair Uses and we **DO NOT** guarantee that your use of the content is Fair.

To use this content you should **do your own independent analysis** to determine whether or not your use will be Fair.

Pharmacy 476

Vertebrate Animals

Kathleen A. Stringer, PharmD

Associate Professor

Department of Clinical, Social and Administrative
Sciences

College of Pharmacy

University of Michigan



Objectives

- Discuss the importance of the use of animals in research
- Review the guidelines for the ethical use of animals in research

Definitions

- The US Public Health Service (PHS) policy defines animal as any live, vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes.

Use of Animals in Research

- Scientific and medical knowledge developed through animal research has saved countless lives, has improved human and animal health, and has alleviated pain and suffering
- Judicious use of animals in research, education, and testing in the interests of human and animal welfare are important
- The University of Michigan insists on humane and ethical treatment of any animals used in research, education, and testing

Rules and Laws

- There are *legal* and *ethical* responsibilities to ensure that animals are not used needlessly and are spared all unnecessary pain and distress
- There are federal, state, local, and institutional laws or guidelines that govern animal research
 - non-compliance can result in loss of funding and legal action

Rules and Laws

- The University's Committee on Use and Care of Animals (UCUCA) provides supervision, coordination, and review of every project that proposes to include the use of animals
- The committee is comprised of:
 - scientists, non-scientists, and public members to encourage representation of diverse viewpoints

Rules and Laws

- This Committee has the responsibility to approve, to require modification of, or to prohibit a project's use of vertebrate animals
- Well-established procedures, similar to those used to monitor human subject research, are used for reviewing and monitoring animal research, education, and testing that is conducted at the university

Federal Oversight

- Public Health Service- National Institutes of Health (NIH)
 - Office of Laboratory Animal Welfare (OLAW)
 - Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals
 - has the responsibility for the general administration and coordination of the policy, provides specific guidance, instruction, and materials to institutions that must comply with the policy
 - institutions must be in compliance in order to receive federal research funding

Investigator Responsibilities

- Describe proposed use of animals in grant applications and/or research proposals
- Obtain UCUCA approval prior to initiating experiments
- Ensure the research is conducted in accordance with the approved protocol
- Comply with institutional policies and procedures
- Address significant changes in the animal protocol

Investigator Responsibilities

- Proposals involving the use of vertebrates must include a discussion of **4 points** regarding the use and treatment of animals:
 - 1) a justification for the use of animals the choice of species, and the numbers to be used
 - 2) description of the veterinary care
 - 3) a description of procedures for minimizing pain and distress
 - 4) a description of and rationale for the method of euthanasia

Proposal

- If your proposal involves the use of vertebrate animals this section should address the following:
 - identify the species, strains, ages, sex and numbers of animals to be used in the proposed work
 - justify the use of animals, the choice of species, and the numbers to be used
 - provide information on the veterinary care of the animals and describe the procedures for ensuring that discomfort, distress, pain and injury will be minimized
 - describe any method of euthanasia to be used and the reason(s) for its selection

Proposal

- Acceptable statements for:
 - the veterinary care of animals and the procedures for ensuring that discomfort, distress, pain and injury will be minimized
 - methods of euthanasia to be used and the reason(s) for its selection
- An example can be found on CTools

Other Issues

- Cell culture
- Stored or enduring human specimens
 - including DNA
- Collectively, issues that pertain to human subjects and the use of animals, established cell lines, and existing samples or data involve a number of ethical issues that are VERY important to ensure the integrity of the research



Additional Source Information

for more information see: <http://open.umich.edu/wiki/CitationPolicy>

Slide 6: University of Michigan, <http://www.umich.edu/>