

Ethical Research with Animals

Animal research is an important part of discovery & innovation in biomedicine. Treating animals with care and respect is essential.

Your Institutional Animal Care and Use Committee (IACUC) makes sure all vertebrate animals participating in research are:

- > On an approved study protocol
- > Handled by properly trained investigators
- > Provided with appropriate care throughout research process
- > Treated in a way that is compliant with the standards in the Animal Welfare Act

REMEMBER THE THREE R'S OF ANIMAL RESEARCH

1

REPLACEMENT

When possible, use a methodology (e.g., computer simulation) that does not use animals to answer a research question. If animals must be used, use animals with the least amount of sentience as possible.

2

REDUCTION

Use the smallest possible number of animals to answer a research question.

3

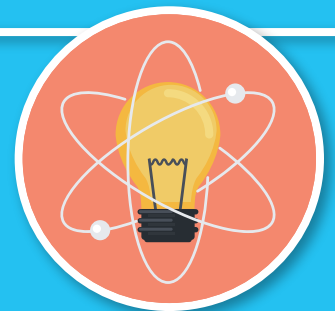
REFINEMENT

Continuous improvement in lab procedures, techniques, concepts, and tools will reduce the need for animals and minimize harm to animals.

4

RECENTLY, A FOURTH "R" HAS BEEN INTRODUCED RESPONSIBILITY

Perform experimentation with animals in a way that is as pain-free and distress-free as possible by using effective and appropriate anesthetics and analgesics.



FURTHER READING: Ghasemi, M., & Dehpour, A. R. (2009). Ethical considerations in animal studies. *Journal of Medical Ethics and History of Medicine*, 2, 12. | Office of Laboratory Animal Welfare (OLAW) website: <https://olaw.nih.gov/> | WUSTL IACUC website <https://research.wustl.edu/offices/iacuc/> | Russell WMS, Burch RL. 1959. (as reprinted 1992). The principles of humane experimental technique. Wheathampstead (UK): Universities Federation for Animal Welfare.