Who Monitors the Use of Animals in Research?

- **United States Department of Agriculture - Animal and Plant Health Inspection Service (USDA-APHIS)**

  - Mission: “To ensure that animals intended for use in research facilities or for exhibition purposes or for use as pets are provided humane care and treatment”

- **Definition of Animal (limited)**
  - Animals—all warm blooded species except birds, rats and mice, and farm animals used for production

- **Majority of research animals (>90%) are rats and mice.**

- **USDA monitors the use of less than 10% of animals—primarily pigs, rabbits, guinea pigs, hamsters, goats, sheep, cattle, horses, dogs and cats.**
Who oversees the use of all animals; especially rodents?

- **Public Health Service Policy** requires:
  - Institutions receiving federal funding submit an **Assurance statement** to the Office of Laboratory Animal Welfare (OLAW).
  - States that the institution is committed to following the Guide for the Care and Use of Laboratory Animals (**the Guide**).
The Guide

- Guide provides details as to the type of housing, veterinary medical care for animals
- Guide also defines how animal care and use protocols must be reviewed by a designated committee
- Animal defined as “any vertebrate animal used in research, teaching or testing”.
Procedures to Monitor Animal Care & Use

- The Institutional Animal Care and Use Committee (IACUC) must inspect and evaluate its facilities and programs at least twice a year.
- The USDA inspects “covered species” annually and more frequently if there is an issue or complaint.
- You must allow a USDA inspector access to your facility at anytime.
- AAALAC (Association for Assessment and Accreditation of Laboratory Animal Care International) accredited facilities are inspected by representatives every 3 years.
- Annual reports are sent to regulatory agencies and AAALAC regarding the use of animals.
IACUC

- Institutional Animal Care and Use Committee or IACUC
  - a committee to oversee and evaluate the institution’s animal program, procedures and facilities
  - Review all protocols describing animal use; procedures may not begin until protocols are approved.
  - IACUCs derive their authority from the law (USDA/OLAW)
  - At a minimum it must include a minimum of 3 people:
    - a veterinarian trained in laboratory animal medicine
    - one practicing scientist
    - at least one community member
    - Federally Funded (minimum of 5)-3 above, and non-scientist and Chair.
The Three R’s

- **REDUCE** - the number of animals needed to meet research goals. Typically a “power analysis” is done to determine the minimum number of animals required per experimental group.

- **REFINE** - finding a better way to achieve a research result. Improving an assay so that it is more humane (requiring fewer blood collections or anesthetic events)

- **REPLACE** - Replace animals with other models or techniques
  
  e.g., Screening pharmaceutical compounds in the laboratory prior to testing in an animal model