

Discussion Points – AREA Program

Introduction to Laboratory Animal Research

Regardless of the size of your AREA Program, it's important to provide students with an overview of the laboratory animal science, highlight the essential role of animals in research, and encourage students to accept the challenge to care.

It's critical to select a program emcee that can immediately engage students in a conversation about the essential role of animals in research and set the stage for the remainder of the program.

Based on past AREA Programs, it's helpful for the emcee to tell his or her story, speak about what they know, and describe what they've experienced throughout their career in laboratory animal science.

It's also a good practice for the emcee to ask rhetorical questions to the students rather than deliver a traditional lecture. A key tenet of a successful AREA Program is audience participation and posing questions to program participants is a great way to guide the conversation.

Some sample questions to ask students include:

- How can we use science to develop cures and treatments for injuries and diseases?
- Why do you think scientists need animals for research?
- What types of animals do you think are needed in research?
- Why do you think mice and rats the most commonly needed animals in research?
- How many of you know somebody who has had cancer, diabetes, or heart disease?
- How many of you have pets at home?
- What are some of the ways animal research has improved human and animal health?

Incorporating Stories

Storytelling is a great way to highlight the benefits of the responsible care and use of animals in research, education, and product safety testing.

While it's important to highlight past research success stories, students are much more interested in the future than most adults. Thus introductory speakers are well-served to make future statements and invite speculation about the future:

- What will the world be like when their 20? 30? 50? 90?
- How might human and animal medicine improve thanks to animal research?
- How are your parents and grandparents benefitting from research discoveries?

It's also helpful to illustrate how animal research has led to cures and treatments to common diseases impacting young people.

Key Messages

The key objective of the introductory presentation is to engage students in the program, highlight key facts about animal research, and refute common myths surrounding the care and use of animals in research.

Below are some key messages speakers, tour guides, and vendors should convey to students throughout the course of the AREA Program:

1. Animal Research Saves Lives

- The humane use of animals in biomedical research is critical to advancing science and developing new medical treatments to benefit people and animals.
- Animals used in research help society by enabling us to:
 - Learn and understand how our bodies work
 - Find cures and treatments for ailments impacting both humans and animals
 - Test the safety of new drugs for both animals and people
- Animal research has led to effective treatments for serious illnesses (diabetes, leukemia, HIV/AIDS, cardiovascular disease), vaccines to prevent polio, rabies, measles, new diagnostic tests for early treatment (cancer, heart disease), and even elimination of smallpox as a U.S. public health threat.
- Surgical procedures evolve from animal models. For instance, research with pigs helped us develop new cardiac surgery techniques and organ transplants.
- Animal research aided in the development of imaging technology (CAT scan) and bioengineering advances such as stents, pacemakers, and joint replacements.

2. Animal Research Benefits Animals

- Dog and cat longevity and health are enhanced by medicines and vaccines developed through animal research.
- Research contributes to farm animal welfare and techniques to save endangered species. The same research often helps both humans and animals (treatments for arthritis, neurological disorders, Lyme disease, organ transplants, cancer therapies).

3. Animal Research is Humane

- Animals needed in research are maintained, monitored, and cared for by highly trained, compassionate professionals.
- Scientists routinely seek and use alternatives to experimental animals whenever those alternatives provide reliable data, reducing the number of animals needed to fulfill the study requirements posed by the U.S. Food and Drug Administration.
- The Animal Welfare Act, regulations, policies, oversight, and voluntary facility accreditation all protect laboratory animals.
- Laboratory Animal Science professionals practice the 3Rs:
 - *Reduce* the number of animals needed.
 - *Refine* studies to ensure humane conditions.
 - *Replace* animal models whenever possible.

- Most research studies don't cause significant pain or distress. Care is taken to protect animals from undue stress, which can also distort study results.

4. Animal Research is Necessary for Medical Progress

- Laboratory animals give us the most reliable safety assurances we can have about medical therapies and provide us with access to complex biologic systems in lieu of human experimentations.
- Animal research is required by federal regulatory agencies. The responsible and humane use of animals in research provides the most reliable and ethical study methods for ensuring safety and advancing our understanding of ourselves and the biological systems.
- Animal research is integral to ongoing research such as spinal cord repair, stem cell treatments, Parkinson's disease, Alzheimer's disease; gene therapy (muscular dystrophy, diabetes); molecularly targeted cancer medicines.
- Animal research cannot be completely replaced by non-animal methods today. Computer models and cell cultures can't give vital information about the safety and efficacy of a substance in a living system.
- Animal research is essential, but only part of the story. It is used with epidemiological studies, computer modeling, tissue/cell cultures, and human trials to understand the efficacy and safety of new medicines.

5. Animal Welfare vs. Animal Rights

- Animal Rights is a philosophical view that animals have rights similar or the same as humans.
- True animal rights proponents believe that humans do not have the right to use animals at all. Animal rights proponents wish to ban all use of animals by humans.
- Animal welfare is a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, nutrition, disease prevention and treatment, responsible care, humane handling, and, when necessary, humane euthanasia.
- Animal welfare proponents seek to improve the treatment and well-being of animals.
- Animal welfare groups utilize scientific evidence to base animal care and handling guidelines.