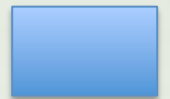
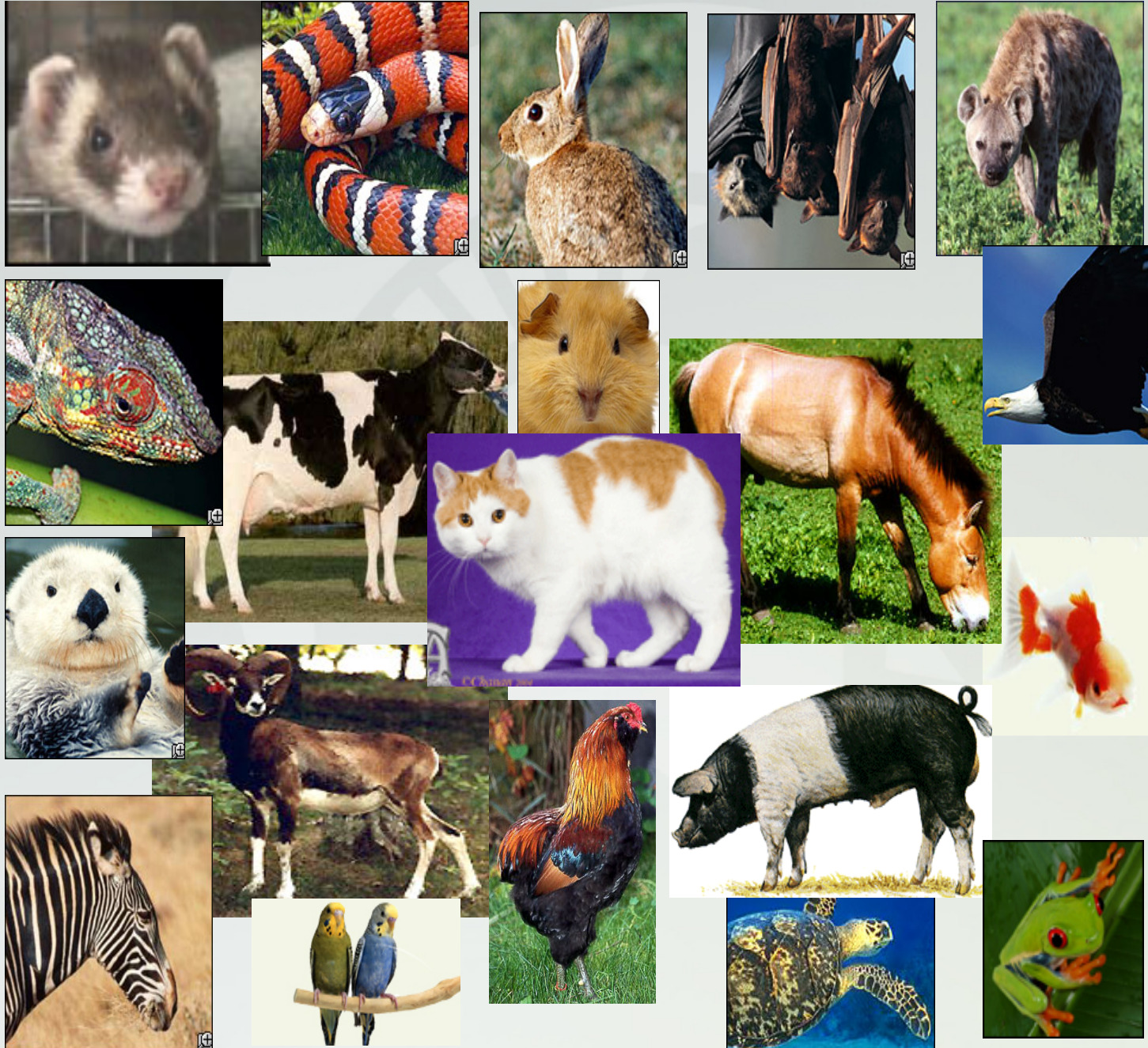


Use of Animals in Research, Teaching, and Testing

**Sally Light, Sue Barman,
Molly Greene, Sandy Wilkins,
& F. Claire Hankenson**

**Animal Care Program
Office of Regulatory Affairs
Michigan State University**

FEBRUARY 2, 2017



Icebreaker:

Turn to your neighbor and
exchange ideas on the
greatest advances involving
animals in contemporary
society

Medical advancements attributed to animal research

- Organization of the CNS
- Surgical advances/suturing/grafting
- Insulin & mechanisms of diabetes
- Penicillins
- Poliovirus vaccine
- Organ transplant techniques
- Organization of the olfactory system
- Stem cells
- Chromosome protection by telomeres
- *In vitro* fertilization
- Activation of innate immunity
- Positioning system of the brain



How does one begin to address the use of animals at academic institutions, like MSU?



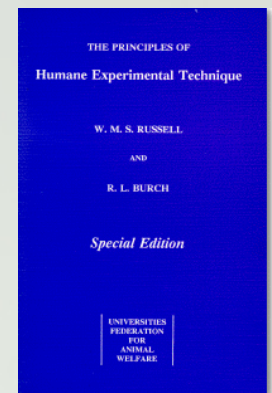
Surely if we have learned anything from the history of morals it is that the thing to do with a moral quandary is not to hide it.

— H. L. A. Hart —

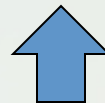
AZ QUOTES

50+ years of “3 R’s” of research

- Scientists William M. S. Russell and Rex L. Burch wrote “scientific excellence and humane use of laboratory animals are inextricably linked” (1959)
- **Reduction**
 - Only as many animals as reasonably necessary be utilized
- **Replacement**
 - Alternatives to the use of live animals be employed or developed wherever feasible
- **Refinement**
 - Any pain or distress animals experience should be minimized
- Additional R’s: Responsibility & Respect



Regulatory References for Animal Care Programs



Regulatory Roadmap

USDA — APHIS

United States Dept of Agriculture

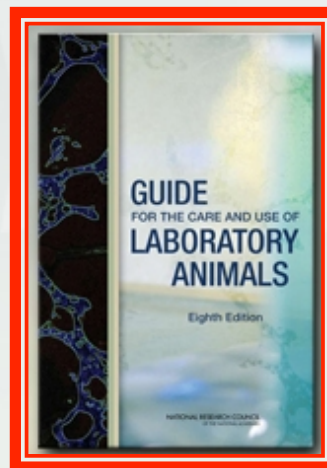
OLAW

Office of Laboratory Animal Welfare

Animal Welfare Act &
Regulations

Public Health Service
Policy
(US Govt Principles)

*excluding mice
(*Mus*), rats
(*Rattus*), and birds,
horses, farm
animals for food/
fiber or agriculture
work



*including
all
vertebrates

Institute for Laboratory Animal Resources (2011)

Guide for the Care and Use of Agricultural Animals in Research and Teaching

Agriculture & Wild Life Guidance



Journal of Mammalogy, 92(1):235–253, 2011

Guidelines of the American Society of Mammalogists for the use of wild mammals in research

ROBERT S. SIKES,* WILLIAM L. GANNON, AND THE ANIMAL CARE AND USE COMMITTEE¹ OF THE AMERICAN SOCIETY OF MAMMALOGISTS

University of Arkansas at Little Rock, Basic Animal Services Unit and Department of Biology, 2801 South University Avenue, Little Rock, AR 72204, USA (RSS)

Department of Biology and Office of Animal Care, Research Ethics and Compliance Services, University of New Mexico, Albuquerque, NM 87131, USA (WLG)

¹ This committee included Darrin S. Carroll, Centers for Disease Control; Brent J. Danielson, Iowa State University; Jerry W. Dragoo, University of New Mexico; Michael R. Gannon, Pennsylvania State University, Altoona College; William L. Gannon, University of New Mexico; David W. Hale, United States Air Force Academy; Christy McCain, University of Colorado; Daniel K. Odell, Hubbs–SeaWorld Research Institute; Link E. Olson, University of Alaska; Sarah Rensing, Southern Illinois University, Carbondale; Robert S. Sikes (Chair), University of Arkansas at Little Rock; Robert M. Timm, University of Kansas; Stephanie A. Trehwhitt, San Jose State University; and Janet E. Whaley, National Oceanic and Atmospheric Administration.

* Correspondent: rssikes@ualr.edu

Federal

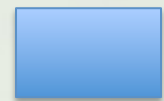
Third

January

System of Oversight

Multi-tier accountability system

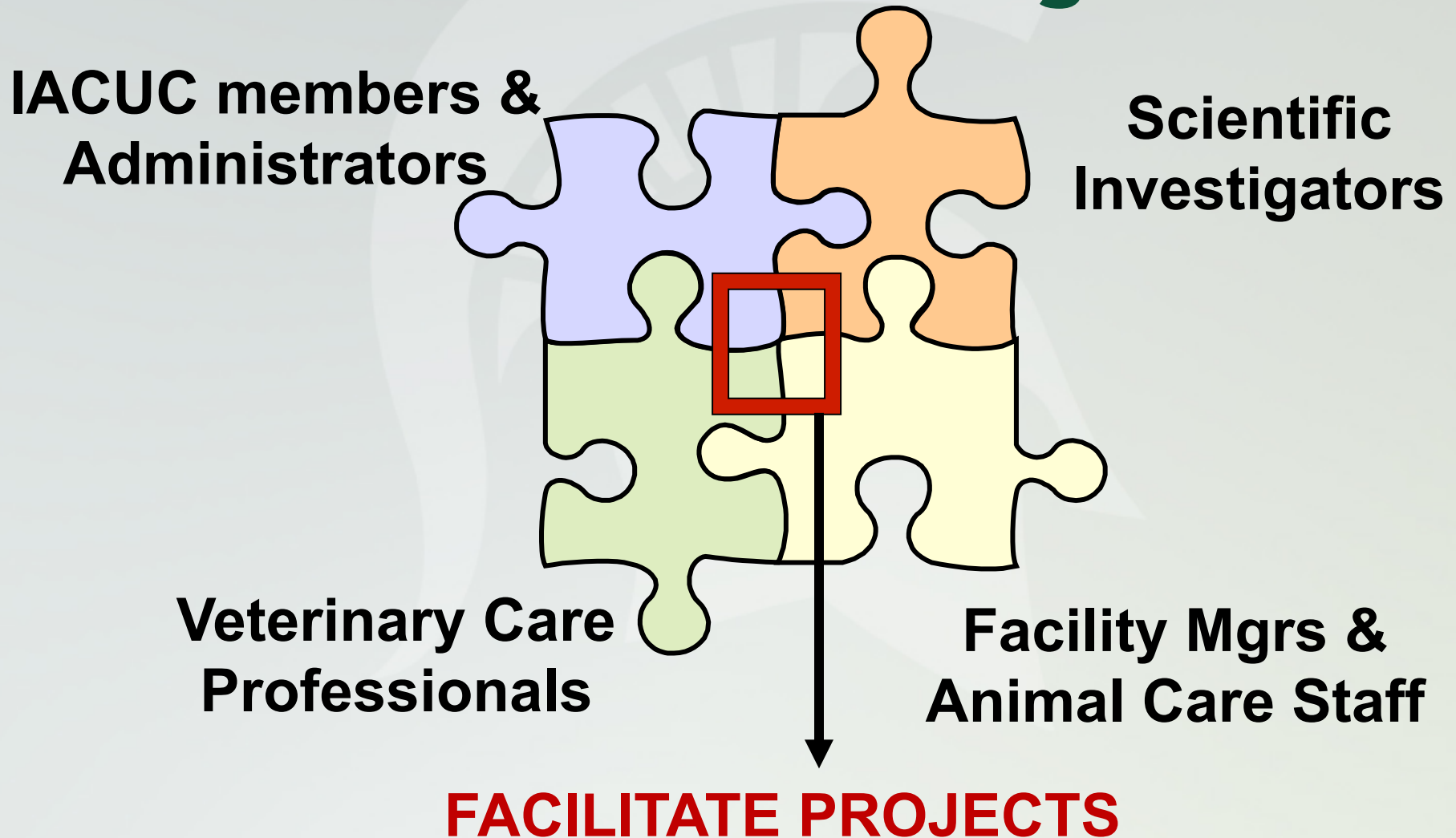
- **Federal – USDA, PHS, FDA, EPA, DOD, NSF**
- **Accreditation - AAALAC**
- **Institutional Animal Care Program**
- **Public: IACUC representation**
- **Semi-annual Inspections**
- **Annual reports to oversight groups**



Primary Responsibility and Privilege of Working with Animals is Local to MSU



Components of the MSU Animal Care Program



Role of the IACUC

- **Facilitate centralized, uniform, and high quality oversight of the institution's animal care program.**
- **Protect the institution and the research by**
 - **Using scientifically sound, performance-based standards**
 - **Respecting professional judgment, and**
 - **Confirming that all personnel are trained and qualified to perform their duties**
- **Assure the public of quality animal care**

Role of the Veterinary Staff

- **Ensure proper animal care and use by providing veterinary oversight of animal use activities**
- **Working in concert with IACUC and scientists, exercise professional judgment to facilitate the science in the context of animal welfare**

Role of the Scientists

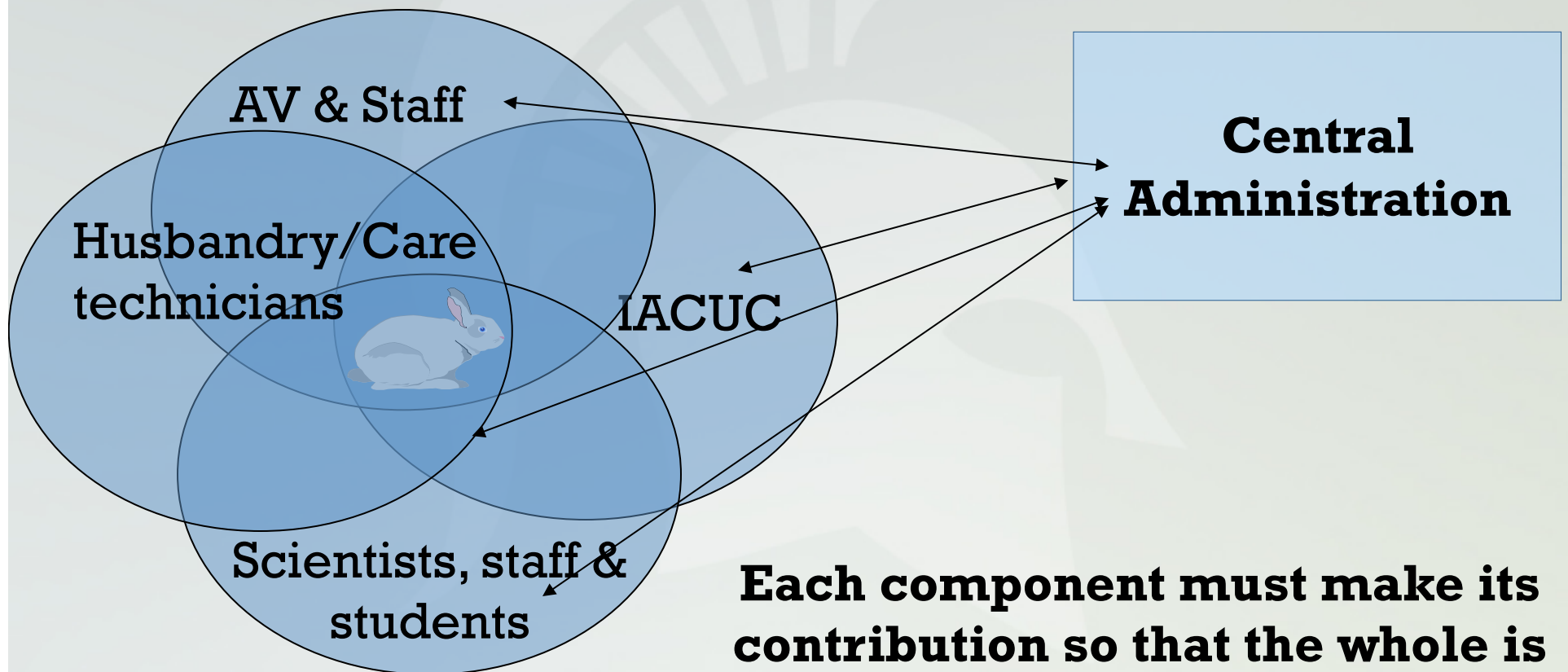
- **Engage in the process**
- **Know the regulations**
- **Apply 3Rs and plan animal use activities in the context of quality animal care**
- **Accept personal responsibility in your assurances to the University**

Role of the Facility/Care Staff

- **Ensure daily checks of animals**
- **Provide food, water, clean bedding**
- **Report animal concerns to the veterinary staff**
- **Serve as a front-line team for facility operations**

Summary:

Components of an Animal Care Program



Each component must make its contribution so that the whole is greater than the sum of the parts; animal welfare is paramount.

Role of the Central Administration

- **Promote the advancement of scientific knowledge**
- **Provide resources for a high quality animal care program**
- **Provide mechanisms of oversight**
- **Provide security for personnel as well as animals under the institution's care**

Some Real-World Scenarios (with Real-World Answers)

If you want to use animals in research or teaching at Michigan State University, what office do you contact to receive guidance?

**IACUC office:
IACUC@msu.edu**

Some Real-World Scenarios (with Real-World Answers)

If you have trouble with an animal during your research study, who do you contact for help?

**Veterinary Staff:
carvets@msu.edu**

Some Real-World Scenarios (with Real-World Answers)

If you have an animal welfare concern,
what do you do?

ATTENTION

It is the policy of
Michigan State University
that all research and teaching animals receive the best possible care.

If you have concerns about our animals,
please call any of the following:

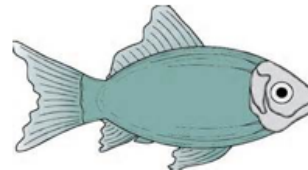
Campus Animal Resources 517-884-8527
University Farms Veterinarian 517-512-3856
Institutional Animal Care & Use Committee 517-353-9705
Misconduct Hotline 800-763-0764 <http://misconduct.msu.edu/>

In case of
emergency:
CALL 911

After Hours, Weekends and Holidays
University Police
517-355-2222

No one shall be discriminated against or be subject to any
reprisal for reporting violations or deficiencies in animal care
and use. Anonymous reports are acceptable.

**HELP US TO ASSURE
THE HUMANE CARE AND USE OF ANIMALS
AT MICHIGAN STATE UNIVERSITY**



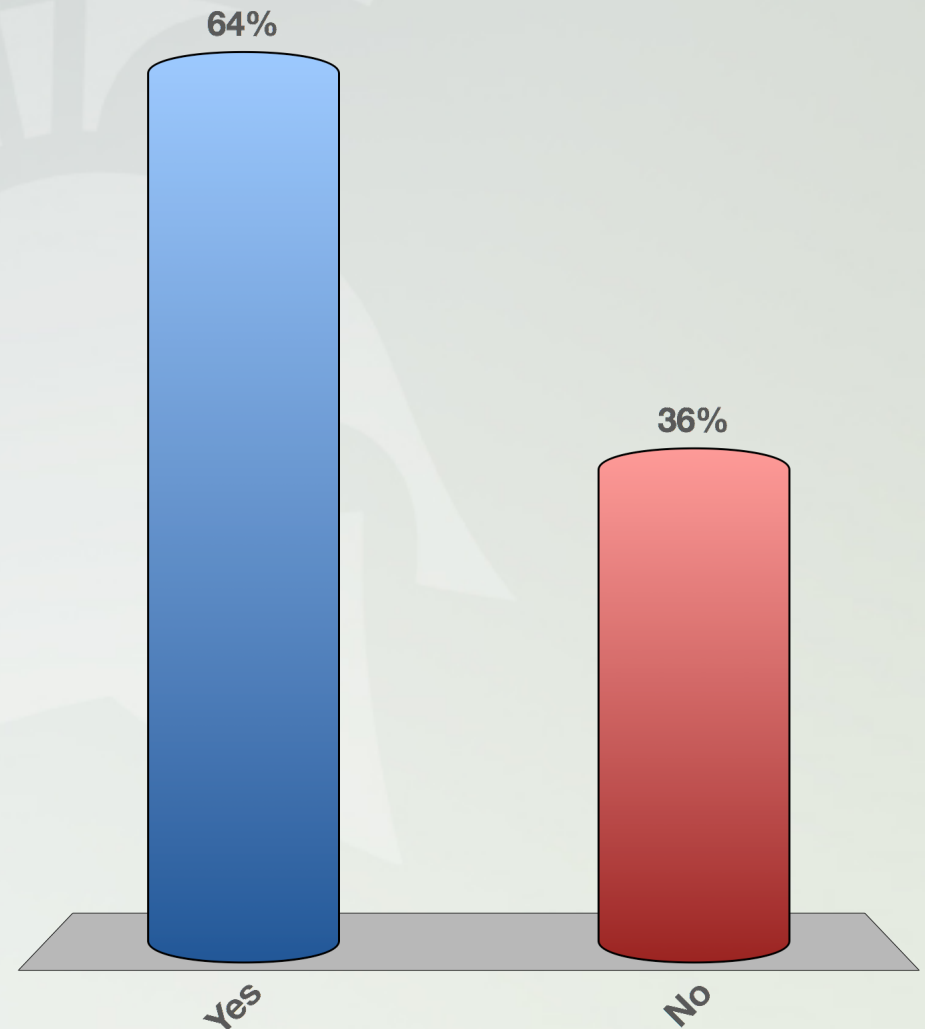
Good Animal Care and Good Science Go Hand-in-Hand

*FASEB Statement of Principles for the
Use of Animals in Research, Teaching and Testing*

**Now ... it's YOUR turn to
provide us with feedback!**

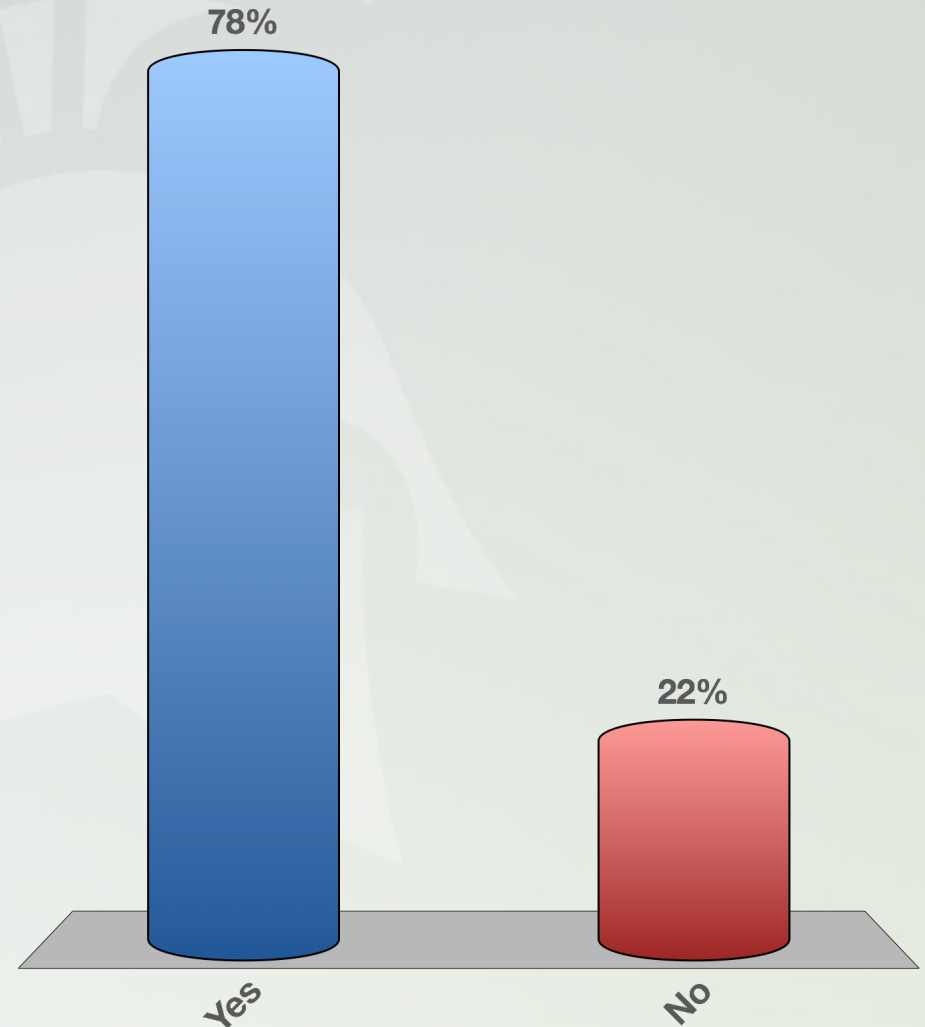
Is it acceptable to talk about animals on social media?

1. Yes
2. No



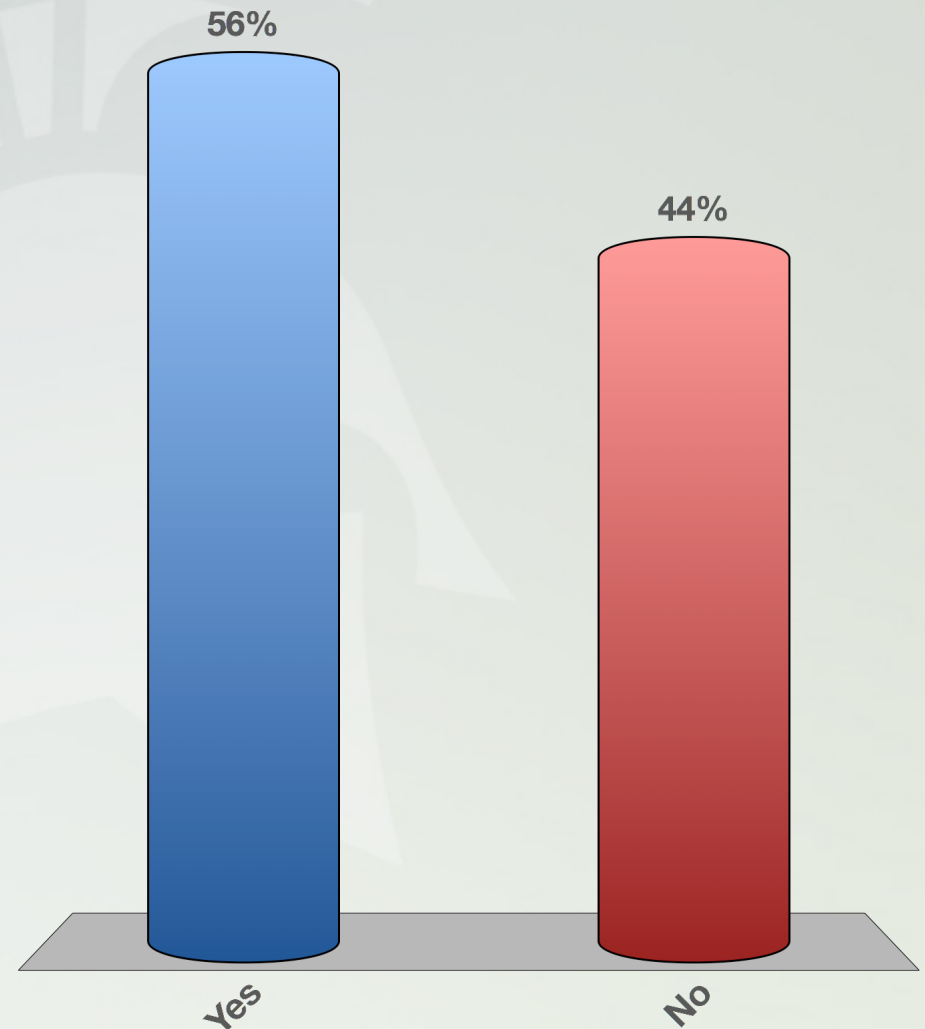
Is it acceptable to talk about the educational use of animals on social media?

1. Yes
2. No



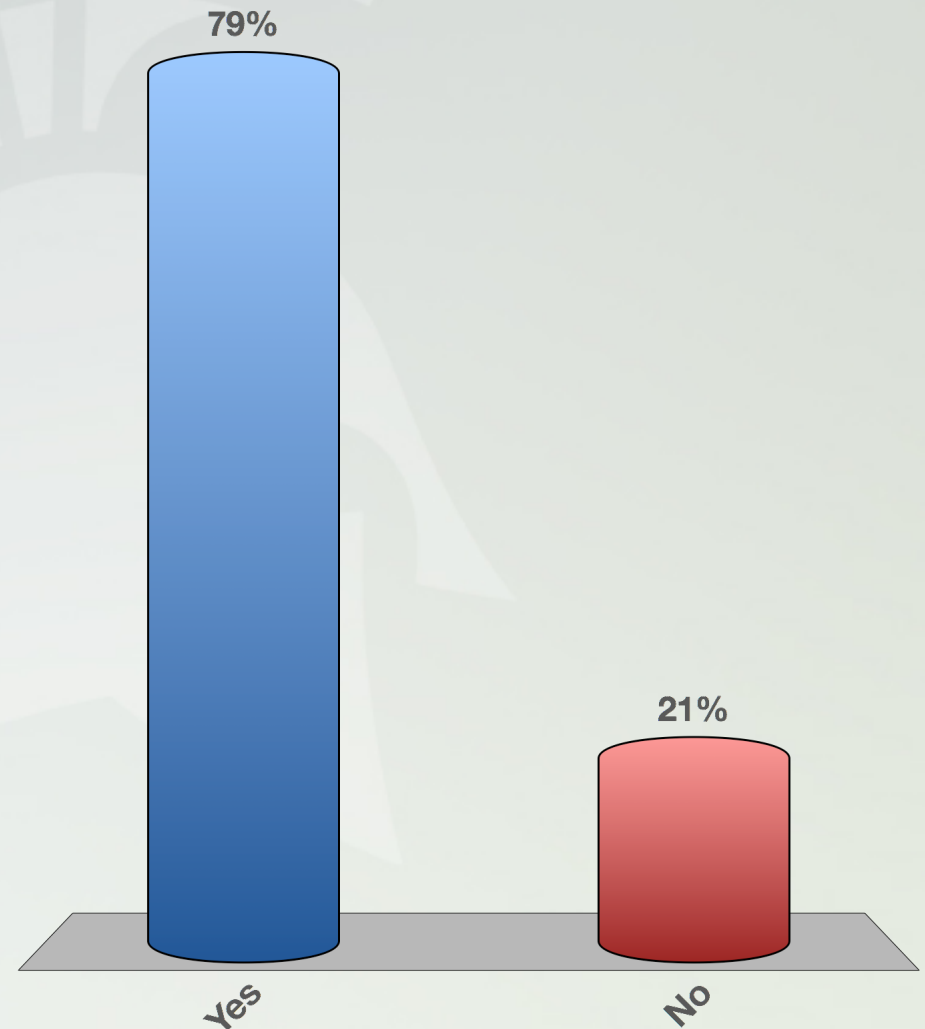
Is it acceptable to talk about your research with animals on social media?

1. Yes
2. No



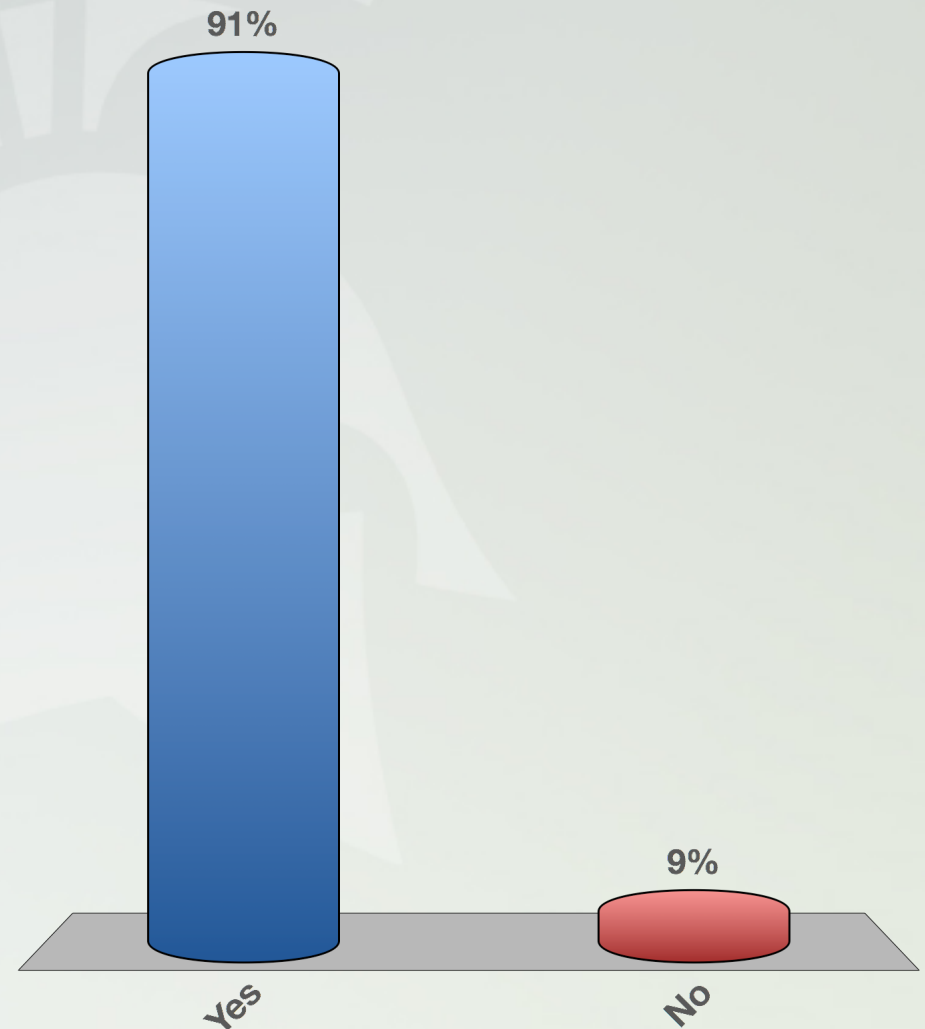
Is it appropriate to use animals to study the effects of distress?

1. Yes
2. No



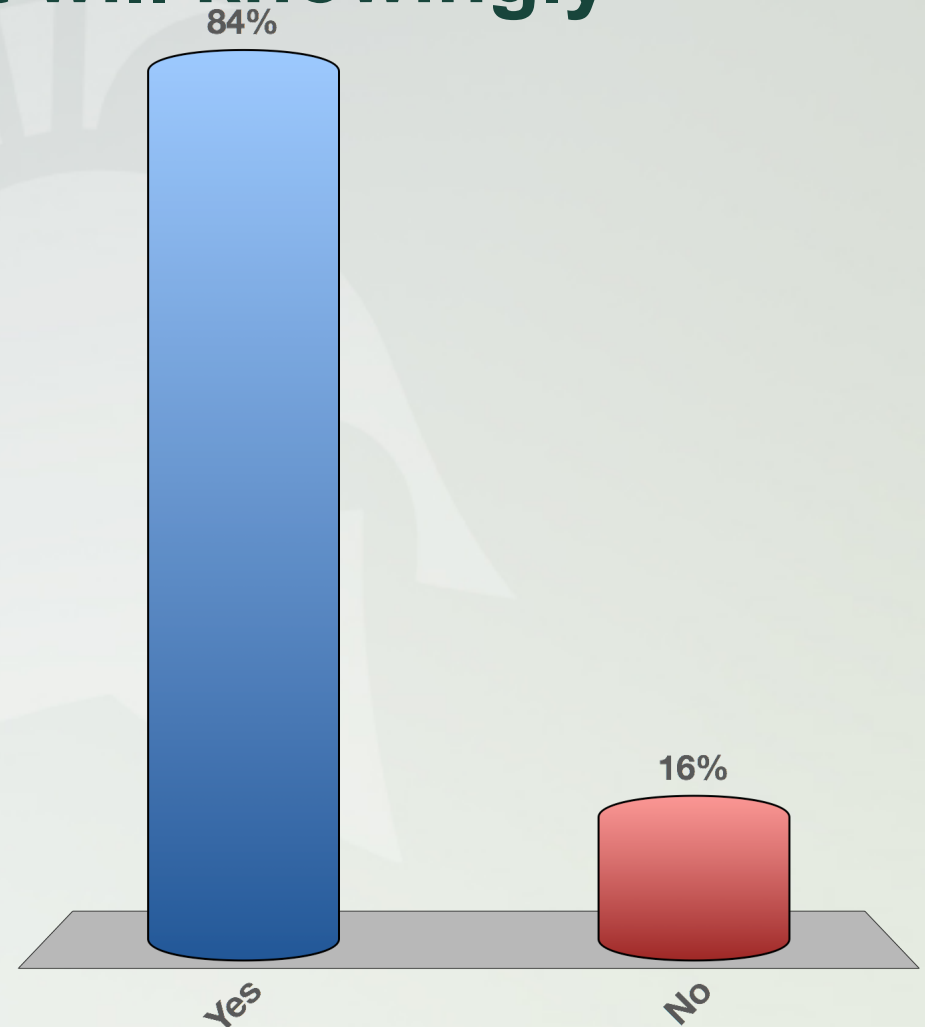
Is it acceptable to use animals to test products that may protect animals and humans?

1. Yes
2. No



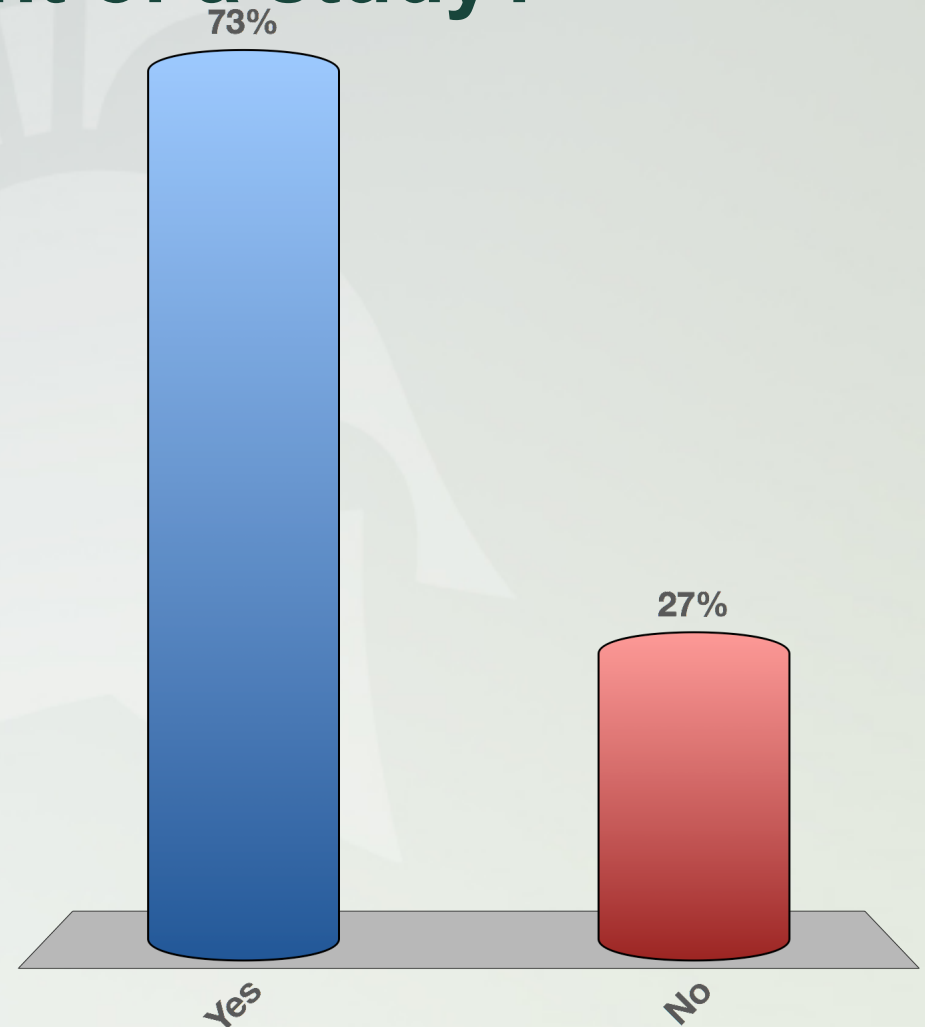
If animals are used to improve animal and human health, is it acceptable to perform studies that will knowingly cause pain?

1. Yes
2. No



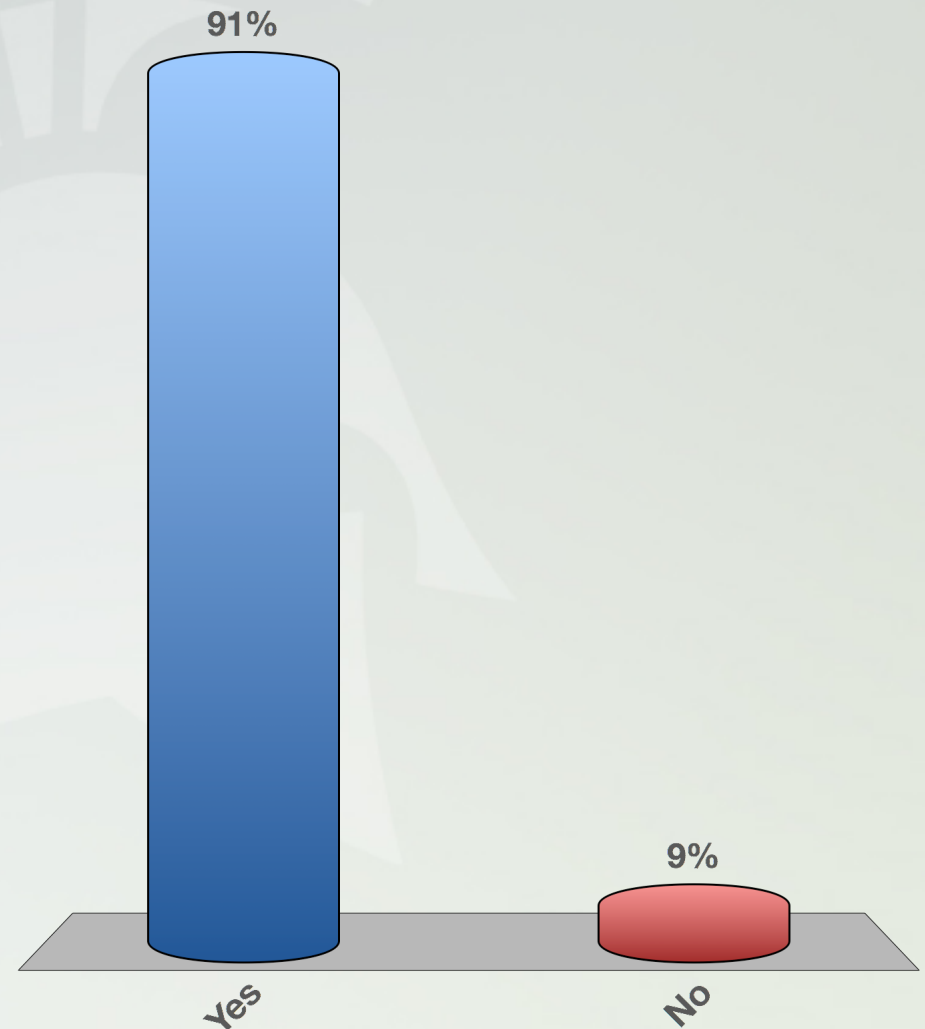
If animals are used to improve animal and human health, is it acceptable to use death as an end-point of a study?

1. Yes
2. No



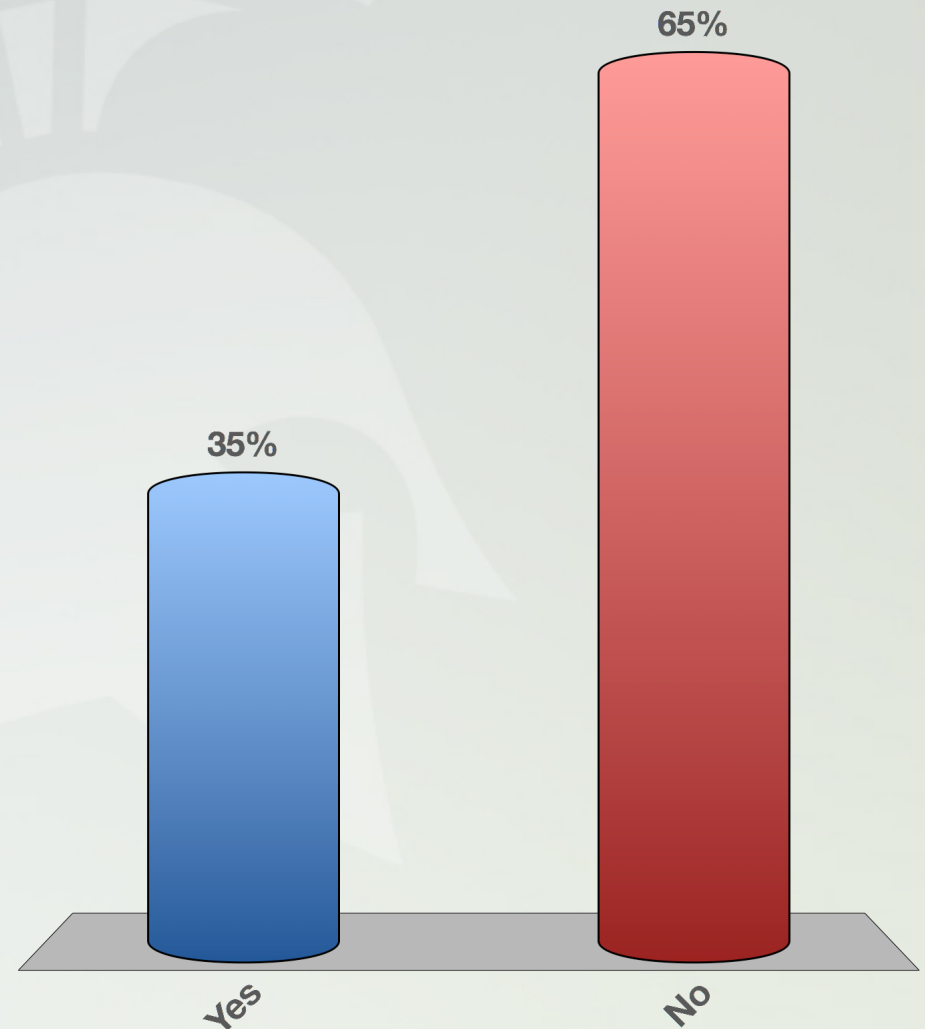
If it is acceptable to use animals to improve animal and human health, is it acceptable to use non-human primates?

1. Yes
2. No



Is it justified to prolong the life of a companion animal in chronic pain?

1. Yes
2. No



Acknowledgements

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- Dr. Steve Hsu (Vice President; Institutional Official)
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MSU Office of Regulatory Affairs

Stephanie Watts, Ph.D.

Questions/Comments?

