

The Council on Humane Giving Problems Associated with Animal Experimentation



PHYSICIANS COMMITTEE FOR RESPONSIBLE MEDICINE

5100 WISCONSIN AVE., N.W., SUITE 400 • WASHINGTON, DC 20016
PHONE (202) 686-2210 • FAX (202) 686-2216 • PCRM@PCRM.ORG • WWW.PCRM.ORG

Humane and effective research

Currently, an estimated 115-127 million animals are used in experimental research worldwide each year, and these numbers are considered conservative estimates.^{1,2} Meanwhile, independent opinion surveys have shown that public support for animal experimentation has declined significantly over the last 50 years, and that the public would welcome the replacement of animals in research.³⁻⁵ The association of animal experimentation with serious adverse physical and behavioral effects on animals is no longer subject to dispute,⁶ and it is increasingly acknowledged in the research community that “humane animal research” is not possible.

Further, there is growing opinion among scientists that animal experimentation is scientifically flawed for physiological, genetic, and procedural reasons. Many scientifically and ethically superior replacements for the use of animals have already been developed, and many more are in development. Therefore, rapid replacement of animal experimentation with nonanimal and human-based methods is a scientific and ethical imperative.



Poor extrapolation for human diseases and treatments

Because of vast anatomical, physiological, and genetic differences between humans and nonhuman animals, results from experiments on animals are often irrelevant to human health.

Specific diseases almost always differ among species in prevalence, manifestations, natural history, and responses to treatments, so researchers are routinely forced to create diseases in animal “models” that attempt to approximate certain aspects of the human disease but do not translate well among species. That is, the same “disease”—whether natural or created—typically manifests differently among common experimental animals such as mice, rats, dogs, and monkeys, between closely related species such as mice and rats, and even within the same species. There is little wonder that translation to humans is unreliable and potentially hazardous.

As stated by Irwin Bross, Ph.D., after retiring from 24 years as director of biostatistics at Roswell Park Memorial Institute for Cancer Research: “Among experienced public health officials, it is well known that you can ‘prove’ anything with animal studies. This is because there are so many different animal model systems and each system gives different results.”⁷

Animal experiments for studying human diseases

Numerous reports demonstrate the unreliability of animal experimentation for predicting human clinical outcomes and the suitability of nonanimal methods to replace them.⁸⁻¹⁴ Persistence of many scientists’ belief in the animal experimentation paradigm, and their resistance to change, has been attributed to “technological and institutional lock-in” (inflexible pathways).¹⁵

Unknown to most of the public, entire fields of medical discovery have produced little or nothing of value to humans