



RESOURCE CENTRAL



Animals in Biomedical Research

In recognition of the need for the appropriate and humane use of animals in research, the American Academy of Neurology endorses and supports the appropriate and responsible use of animals as experimental subjects.

Most scientists and philosophers take the ethical position that animal testing in the pursuit of medical progress is desirable, as long as animal suffering is minimized. However, a range of viewpoints exist—on the use of animals in research and on the notion of “animal rights.” For example, the (retired) philosopher Tom Regan asserts that animals have moral rights, though he also argues that to save human lives it is permissible to kill animals. Bernard Rollin, a professor of philosophy, animal sciences, and biomedical sciences at Colorado State University, asserts that any benefits to human beings cannot outweigh animal suffering.

Scientists and governments state that animal testing should cause as little suffering to animals as possible, and that animal tests should only be performed where necessary. In many labs, the guiding principles for the use of animals in research are “The Three Rs”:

1. **REPLACEMENT** refers to the preferred use of non-animal methods over animal methods whenever it is possible to achieve the same scientific aim.
2. **REDUCTION** refers to methods that enable researchers to obtain comparable levels of information from fewer animals, or to obtain more information from the same number of animals.
3. **REFINEMENT** refers to methods that alleviate or minimize potential pain, suffering or distress, and enhance animal welfare for the animals still used.

For Further Reading

- ▶ aan.com/go/science/animals: You can read the AAN’s position statement on the use of animals in neurological research, listen to a podcast about the topic, and find other resources here.
- ▶ Arluke, Arnold and Clinton Sanders, *Regarding Animals*. Temple University Press, 1996. Arluke is an anthropologist who researches the culture and ethics of animal use in biomedicine. For this book, he worked in clinics, shelters, and laboratories, cleaning cages, assisting in surgery, and participating in animal experiments.
- ▶ Russell W. M. S. and R. L. Burch. *The Principles of Humane Experimental Techniques*. Methuen, 1958. This seminal book, by scientists William Russell and Rex Burch, first proposed the “The Three Rs.”
- ▶ Smith, Richard. “Animal Research: The Need for a Middle Ground.” *British Medical Journal*, February 3, 2001, pp. 248-249. Richard Smith, M.D., former editor of the *British Medical Journal*, argues in this article that polarized positions oversimplify current public discussion on the issue.

Assistance Directory

For a full listing of patient organizations, go to neurologynow.com

HELP FOR ALL NEUROLOGICAL DISORDERS

American Academy of Neurology Foundation
aan.com/go/foundation
1-800-879-1960

AAN Website
(For doctors and patients)
AAN.com

National Institute of Neurological Disorders and Stroke
ninds.nih.gov

Well Spouse Association
wellspouse.org
1-800-838-0879

ALZHEIMER’S DISEASE

Alzheimer’s Association
alz.org
1-800-272-3900

Alzheimer’s Disease Education and Referral Center
alzheimers.org
1-800-438-4380

Alzheimer’s Foundation of America
alzfdn.org
1-866-232-8484

Association for Frontotemporal Dementias
FTD-Picks.org
1-866-507-7222

AUTISM

Autism Society of America
autism-society.org
1-800-3AUTISM (1-800-328-8476)

Autism Speaks, Inc.
autismspeaks.org
212-252-8584