



P H Y S I C I A N S
 C O M M I T T E E
 F O R
 R E S P O N S I B L E
 M E D I C I N E

5100 WISCONSIN AVENUE, N.W., SUITE 400
 WASHINGTON, DC 20016
 T: (202) 686-2210 F: (202) 686-2216
 PCRM@PCRM.ORG WWW.PCRM.ORG

THE GREAT APE PROTECTION AND COST SAVINGS ACT A SCIENTIFIC IMPERATIVE

Chimpanzees have been used for experimentation in the United States since the 1920s and more than 1,000 chimpanzees remain in U.S. laboratories today. While chimpanzees are humans’ closest genetic relatives,¹ significant genetic differences result in critical differences in manifestation of diseases and effectiveness of treatments.² Chimpanzee experiments focusing on human immunodeficiency virus (HIV), hepatitis, Alzheimer’s and other diseases have failed to significantly advance human health research while raising profound ethical concerns and resulting in wasteful expenditures of tax dollars.

Ineffective experiments have led to a decline in chimpanzee use.

Researchers have moved away from infecting chimpanzees with HIV because it has not proved reliable for human disease research.³ Only 20 percent of the more than 1,000 chimpanzees in U.S. laboratories are used in research.

HIV experiments on chimpanzees.

In over a quarter of a century, more than 85 HIV vaccines were developed that demonstrated benefits in nonhuman primates but all failed in at least 200 human trials.⁴ In one case, an HIV vaccine candidate that proved effective in chimpanzees appeared to increase the likelihood of infection in humans.

Hepatitis C experiments on chimpanzees.

Decades of hepatitis C research have shown that the virus behaves very differently in chimpanzees than in humans.⁵ Chimpanzees are rarely affected by chronic hepatitis or complications associated with the disease—including liver cirrhosis and hepatocellular carcinoma—which commonly occur in infected humans.⁶ Unlike the majority of human patients, chimpanzees spontaneously clear acute hepatitis C.⁷ Vertical transmission of hepatitis C is observed in humans but has not been reported in chimpanzees.⁸

Alzheimer’s and brain research using chimpanzees.

Chimpanzees have been used for experiments on normal brain function as well as a range of mental disorders, including Alzheimer’s disease. In humans, the development of “plaques” are associated with mild cognitive impairment and Alzheimer’s.⁹ But despite decades of observation, brain imaging studies, and post-mortem examinations of chimpanzees, scientists have found a plaque in just one chimpanzee, even though he did not exhibit any clinical evidence of cognitive impairment.¹⁰ There is no evidence to suggest that other chimpanzees can or have ever developed Alzheimer’s or mild cognitive impairment or exhibited any symptoms of these conditions.

Chimpanzee Research by the NUMBERS

Number of federally owned and supported chimpanzees in laboratories:
755

Average cost per day to keep a chimpanzee in a laboratory:
\$47

Life-time cost to keep one chimpanzee in a laboratory:
More than \$750,000

Approximate percentage of chimpanzees used in active research protocols:
20 percent

Size of a chimpanzee cage:
5' x 7' x 7'

Drug testing using chimpanzees is not necessary.

Federal Drug Administration regulations do not require the use of chimpanzees to test therapies or vaccines. Effective nonanimal methods are available for virus research and for preclinical testing required prior to human clinical trials.¹¹

Chimpanzee suffering in laboratories can confound experimental results and raises serious moral issues.

Physiological and behavioral abnormalities are associated with stress for animals in laboratories,¹² including changes in blood pressure, heart rate, stress hormones, experimental outcomes, and even genetic expression.¹³ Routine and nonroutine stressors can affect animals' health and behavior, and impact experimental results.

Continuing to use chimpanzees in invasive experiments raises profound ethical concerns as chimpanzees in laboratories often suffer from serious psychological disorders and experience high morbidity and mortality rates due to their confinement and use in experiments.¹⁴

The Great Ape Protection and Cost Savings Act is the medically, scientifically, and ethically responsible solution to these problems. Its passage would end invasive and harmful experiments on chimpanzees and encourage the use of more effective human-based research methods.

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