

# CHIMPANZEES IN BIOMEDICAL RESEARCH

The Institute of Medicine (IOM) has assessed the need for chimpanzees in biomedical and behavioral research and has concluded that chimpanzees have been a vital animal model in the past and are still needed in certain research areas. For these reasons, the IOM did not endorse a ban on their use. Passage of the Great Ape Protection and Cost Savings Act will undermine important biomedical research, disregard the recommendations of the IOM, and not promote cost savings.

## CHIMPANZEES ARE VALUABLE FOR BIOMEDICAL RESEARCH

### Preventing Hepatitis

- Chimpanzees are the only animal model susceptible to all five main hepatitis viruses: A, B, C, D, and E.
- Research on chimpanzees led to the development of diagnostic tests for hepatitis A and B, which have virtually eliminated the spread of these diseases through blood transfusions.
- Research on chimpanzees led to the development of vaccines for hepatitis A and hepatitis B, which reduced infection rates by 92% and 82%, respectively.
- Almost 200 million people suffer from chronic hepatitis C infection and are at risk for liver failure and liver cancer. The CDC estimates that more people in the U.S. are dying from hepatitis C infection than HIV infection. In fact, one in 33 people aged 45-64 may have the disease and not even know it.<sup>1</sup>
- Currently, no vaccine exists for the prevention of hepatitis C. On-going research with chimpanzees is being performed to develop vaccines and antiviral therapies for hepatitis C.
- The IOM committee concluded that chimpanzees are still needed for the development of a prophylactic hepatitis C vaccine.

### Developing and Testing Monoclonal Antibodies

- Chimpanzees are important in developing and testing monoclonal antibody therapies for autoimmune diseases and cancers because their cell surface receptors and cytokine profiles are almost identical to those of humans.
- Monoclonal antibodies that were tested in chimpanzees are used to treat:
  - ❖ B-cell non-Hodgkin's lymphoma
  - ❖ Several inflammatory and arthritic conditions, including rheumatoid arthritis, Crohn's disease, ulcerative colitis, and psoriasis
- The IOM committee concluded that chimpanzees should still be available to conclude the study of monoclonal antibodies in the development pipeline.

<sup>1</sup> Ly KN et al. The Increasing Burden of Mortality from Viral Hepatitis in the United States between 1999 and 2007. *Ann Intern Med.* 56(4):271-8, 2012.

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## CHIMPANZEE RESEARCH HELPS CHIMPANZEES AND OTHER GREAT APES

- Thousands of wild chimpanzees and gorillas have died from Ebola, which has led to a 32% decline in world populations.
- Ebola kills 95% and 77% of affected gorillas and chimpanzees, respectively.
- Research on captive chimpanzees has led to the development and testing of an Ebola vaccine for use in wild chimpanzees and gorillas.

## RESEARCH ON CHIMPANZEES IS GOVERNED BY STRICT LEGAL/REGULATORY STANDARDS

- Research on chimpanzees is conducted within a strict ethical, legal, and safety framework.
  - ❖ Chimpanzees are protected under the United States Department of Agriculture's (USDA's) Animal Welfare Act.
  - ❖ USDA conducts annual unannounced inspections to ensure that all animals are being treated humanely.
  - ❖ The Public Health Service requires researchers to adhere to the Institute for Laboratory Animal Research's *Guide for the Care and Use of Laboratory Animals*.
- Institutional Animal Care and Use Committees approve protocols that use chimpanzees in research. These committees ensure that the research is scientifically justified and ethically sound, that the smallest numbers of animals are used, and that animals receive humane care.
- The IOM devised recommendations and principles to guide the future use of chimpanzees in research. NIH has accepted their recommendations and will only fund chimpanzee studies that adhere to them.<sup>2</sup>
- All U.S. chimpanzee facilities are accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC), an organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment.
- Chimpanzees receive high quality care, housing in social groups, environmental enrichment, access to outdoor enclosures, and training to reduce stress levels during procedures.

## PROHIBITING RESEARCH ON CHIMPANZEES WILL NOT SAVE MONEY

- It is more expensive to support chimpanzees in sanctuary than in research facilities.<sup>3, 4</sup>
  - ❖ *Average daily cost for housing a chimpanzee in a research facility = \$34.10*
  - ❖ *Average daily cost for housing a chimpanzee in sanctuary = \$43.80*
- Additional costs will be incurred to build the infrastructure needed to house the chimpanzees in sanctuary.
- Most sanctuaries do not have the veterinary staff or resources needed to care for research chimpanzees—many of whom have chronic conditions.

For more information on the use of animals in research, visit  
<http://www.faseb.org/animalsinresearch>

<sup>2</sup> <http://www.nih.gov/news/health/dec2011/od-15.htm>.

<sup>3</sup> [http://grants.nih.gov/grants/policy/air/cost\\_for\\_caring\\_housing\\_of\\_chimpanzees.htm](http://grants.nih.gov/grants/policy/air/cost_for_caring_housing_of_chimpanzees.htm)

<sup>4</sup> [http://dpcpsi.nih.gov/council/working\\_group.aspx](http://dpcpsi.nih.gov/council/working_group.aspx)