

### Representing Over 110,000 Researchers

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Congresswoman Nicole Malliotakis 1124 Longworth House Office Building Washington, DC 20515 Phone: (202) 225-3371

May 7, 2025

Dear Congresswoman Malliotakis and SPARE Act co-sponsors,

FASEB and the undersigned organizations strongly oppose the Save Pets, Animals, and Research Ethics (SPARE) Act. Implementation of the SPARE Act would halt critical, lifesaving research happening at American institutions, push research infrastructure overseas to countries with fewer animal protections, and restrict American innovation in the biological and biomedical fields. Therefore, we strongly urge you to withdraw your support for this bill.

#### **Research Animals Save Lives**

Today's top-listed health concerns are varied and biologically complex – obesity, heart disease, chronic illnesses, Alzheimer's, substance abuse disorders, mental health conditions, etc. Animal research protects patients and clinical trial participants by identifying unanticipated negative effects in drug candidates and de-risking the process of medical discovery. To solve modern medical challenges, we need to support the research that best addresses each underlying scientific question, which in most cases will include animal research.

The contributions of animal research to biomedical advances span every medical field. Every FDAapproved medical treatment and cure – innovations monumental to modern wellbeing – was discovered and ensured to be safe thanks to animal research.

- Insulin treatment for diabetes would not exist without research in dogs, mice, and rats.
- Control of high blood pressure is possible because of research in cats, mice, and rats.
- Advances in diagnosing and treating **breast cancer**, testicular cancer, and leukemia, are the result of research in mice, quail, rabbits, and non-human primates.

### Animal research has been essential to every step of modern medical progress. Without animal research, we risk failing vulnerable Americans in need of safe and effective medicines.

#### **Animal Research Serves American Interests**

Animal research has long been the cornerstone of American biomedical innovation. Since the Nobel Prize in Physiology or Medicine was established in 1901, American researchers have received more awards than scientists from any other country; 86 percent of which were for discoveries made through animal research.<sup>1</sup> These breakthroughs have improved the health of millions and fueled substantial U.S. economic growth.

Animal research contributes significantly to the U.S. economy. Investment in animal research provides thousands of well-paying jobs for both low- and high-skilled American workers, including veterinarians,

Full members: American Physiological Society • American Society for Biochemistry and Molecular Biology • American Society for Pharmacology and Experimental Therapeutics • American Society for Investigative Pathology • The American Association of Immunologists • American Association for Anatomy • Society for Developmental Biology • Association of Biomolecular Resource Facilities • The American Society for Bone and Mineral Research • Society for the Study of Reproduction • Endocrine Society • Genetics Society of America • The Histochemical Society • Society for Glycobiology • Association for Molecular Pathology • Society for Redox Biology and Medicine • Society For Experimental Biology and Medicine • American Aging

Association • Society for Leukocyte Biology • American Federation for Medical Research • Shock Society • Associate members: American Society of Human Genetics

<sup>&</sup>lt;sup>1</sup><u>Nobel Prizes | animalresearch.info</u>

laboratory animal technicians, researchers, research assistants, front office support staff, and custodians. Today, public investment in the NIH supports over 400,000 jobs and generates approximately \$94 billion in economic activity.<sup>2</sup> American support for biomedical research has consistently attracted industry investment, with U.S. being home to five of the world's ten largest pharmaceutical companies. Without animal research, America's position as a global leader in biomedical science would be severely compromised.

## Supporting animal research is essential not only for advancing medical knowledge but also for maintaining the country's competitive edge in the global marketplace.

### Animal Research and Non-animal Alternative Methods Are Not Interchangeable

Some advocates would have you believe that animal research is unnecessary due to recent advances in laboratory techniques. These claims are simply not true.

Living organisms exhibit biological complexity that AI and "test tube" techniques cannot replicate. Alternative methodologies, such as computer simulations, organoids, organ-on-a-chip, and cell cultures, provide valuable data for specific aspects of research. However, **alternative methodologies have key limitations.** They cannot capture whole-body effects, such as drug metabolism and how treatments and diseases interact across multiple organ systems. These limitations are particularly relevant in the study of complex chronic illnesses, including autoimmune and certain neurological disorders, which involve systemic interactions. Furthermore, alternative methods often miss crucial insights into disease onset and progression, which are essential for determining treatment timing and guiding care plans. While alternative methodologies aid modern scientific discovery, they cannot replace the knowledge gained by testing in complete living beings.

## Nonanimal models cannot reliably or fully mimic complex biological systems. Animal research is still necessary when testing the safety and effectiveness of new drugs and treatments.

### **Biomedical Animal Research Helps Pets Too**

Veterinary and biomedical research are inextricably linked, and findings from one often lead to lifechanging advancements for the other. One of the key benefits of animal research is its dual purpose: aiding in our search for biomedical breakthroughs and supporting innovation in veterinary care and agriculture. Many of the medicines our pets and livestock rely on when sick or injured are the result of animal research funded to advance biomedical science.

For example, the same antibiotics used to treat bacterial infections in people are also used to heal our furry, scaly, and feathered companions. Anti-inflammatory medicines developed to ease arthritis in people are routinely used to alleviate joint pain in dogs, cats, and even horses. Pets diagnosed with cancer receive treatment through chemotherapy protocols originally developed for and used to treat human cancers.

Veterinary research often faces severe funding challenges, and without the continued support of biomedical animal research, the progress made for both humans and animals could come to a halt. A ban on biomedical animal research would harm researchers' chances of making these cross-cutting discoveries that help animals and humans alike.

### Biomedical and veterinary research overlap significantly, and findings can have broad applicability. Eliminating biomedical animal research would harm the health and wellbeing of our pets.

<sup>&</sup>lt;sup>2</sup> The State of the U.S. Biomedical and Health Research Enterprise | National Academy of Medicine

### **Concern for Animal Welfare is Integral to the American Research Process**

The U.S. sets the world standard for humane animal research. Stringent regulations enforced by the Department of Agriculture (USDA)<sup>3</sup> and Public Health Service (PHS)<sup>4</sup> ensure that research animals receive proper care and housing. These regulations include a commitment to the "3 Rs", which are:

- 1. **Reducing** the number of animals used in research;
- 2. Replacing animal models with alternative methodologies, when feasible; and
- 3. Refining methods used in animal research to improve laboratory animal welfare.

In the U.S., personnel (researchers, veterinarians, laboratory animal technicians) involved with animal research must be trained in laboratory animal science to ensure proper care. Veterinarians oversee the clinical care and wellbeing of research animals. Laboratory animal technicians provide daily care, food, water, and enrichment. Oversight boards, known as Institutional Animal Care and Use Committees (IACUCs), regularly monitor research facilities to confirm humane treatment.<sup>5</sup> These committees include independent members to maintain objectivity and ensure that animal welfare is prioritized.

Animal research in the U.S. is heavily regulated, and there are consequences for not following the law. However, other countries may not have similar protections. If animal research were banned in the U.S., much of it would be outsourced to other countries, likely at the expense of animal welfare.

# Research animals in the U.S. receive top line care from highly trained professionals, as mandated by existing laws and regulations.

Thank you for your consideration of the harmful effects the SPARE Act would have on American medical and veterinary progress and U.S. leadership in biomedical innovation.

<sup>&</sup>lt;sup>3</sup> <u>Animal Welfare Act | National Agricultural Library</u>

<sup>&</sup>lt;sup>4</sup> PHS Policy on Humane Care and Use of Laboratory Animals | OLAW

<sup>&</sup>lt;sup>5</sup> The IACUC | OLAW