Counterpoint: Animal Testing Is Sometimes the Best Way to Ensure Public Safety

Thesis

Many important research bodies support the regulated use of animals in scientific research, citing as evidence the medical progress that has been achieved through animal testing.

Talking Points

The independent scientific community of the UK, The Royal Society, carefully regulates the use of animals in the research that it funds.

The Association of the British Pharmaceutical Industry (ABPI) argues that advances in medicine and vaccines have only been made possible by animal testing.

According to the University of Oxford, the fact that mice share close similarities with humans lends confidence to results obtained via animal testing, such as the discoveries of the Medical Research Council (MRC) about cystic fibrosis.

Summary

The Royal Society believes that 'all research should be carried out with a high regard for animal welfare' and 'should go ahead under rigorous review'. In the research it funds, the Royal Society ensures high standards by addressing the 3Rs: avoiding stress and pain where possible, using the least sentient animal possible, and ensuring that reports are independently peer reviewed, there is transparency and there are no alternatives available.

The Association of the British Pharmaceutical Industry argues that animal testing has played a part in 'almost every medical breakthrough of the last century' and states that current management and cure of some diseases would not have been possible without it. Recent examples include the Pfizer COVID-19 vaccine, for which pre-clinical studies revealed that immunisation of animals with a modified medicine 'resulted in strong anti-viral effects against an infectious SARS-CoV-2 challenge'. Another example is novel treatments for cancer that use monoclonal antibodies, which recognise and bind to cancer cells. Testing involves transferring cancer cell lines to mice so that they develop small tumours and then measuring the rate at which the medicine shrinks the tumour. This approach is important to protect human volunteers and patients, and ABPI states that these medicines are already reducing deaths.

A University of Oxford overview of animal testing explains that the close similarities between animals and humans in 'basic chemistry, cell structure and bodily organisation' make animals very useful in research. Mice share 90% of their genes with humans, and a large proportion of procedures involve breeding genetically modified mice. A paper by the Medical Research Council notes that researchers developed a mouse version of cystic fibrosis, which allowed a 'detailed study of what actually goes wrong in the lungs to cause the disease'. Through testing on mice, researchers discovered 'a failure to clear two important lung germs'. The University of Oxford states that genetically modified mice will 'play a crucial role in future medical progress as understanding of how genes are involved in illness is constantly increasing', and, though it is good to look for alternatives, 'there is overwhelming scientific consensus worldwide that some research using animals is still essential for medical progress'.

Ponder This

- The author has presented the fundamental positions for this perspective in the debate. Outline the strengths and weaknesses of each position.
- If asked to begin forming an argument for this position, what sources would you need to build your case? What fundamental information do you need? What opinion leaders in this debate would you look to in solidifying your argument?
- What are the weakest aspects of the position outlined by the author? How might those weaker arguments help you prepare a counterargument?
- What additional Talking Points could you add to support this position?

Bibliography

"Animals and Medicines Research." *Association of the British Pharmaceutical Industry*, 20 July 2009, www.abpi.org.uk/publications/animals-and-medicines-research/. Accessed 15 June 2022.

"Mice and Medicine: Animal Experiments, Medical Advances and the MRC." *UK Research and Innovation,* Medical Research Council, Aug.

2021, www.ukri.org/wp-content/uploads/2021/08/MRC-0208212-Mice-and-Medicine.pdf. Accessed 15 June 2022.

"Pfizer and BioNTech Announce Data from Preclinical Studies of mRNA-Based Vaccine Candidate against COVID-19." *Pfizer*, 9 Sep. 2020, www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-data-preclinical-studies-mrna. Accessed 15 June 2022.

"Research Using Animals: An Overview." *University of Oxford*, www.ox.ac.uk/news-and-events/animal-research/research-using-animals-an-overview. Accessed 15 June 2022.

"Statement of the Royal Society's Position on the Use of Animals in Research." *The Royal Society*, 23 July 2021, royalsociety.org/topics-policy/ethics-conduct/animal-testing/. Accessed 15 June 2022.