



Vermont: Require the Use of Test Methods that Replace Animals Support H.14 to Improve Human Safety and Scientific Innovation

Overview

Every year in the United States, hundreds of thousands of animals suffer and die to assess the safety of products, including for cosmetics, household cleaners, drugs, pesticides, and industrial chemicals. In common toxicity testing, harsh chemicals are applied to an animal's skin, forced down their throat or into their lungs, and dripped into their eyes—and pain relief is typically withheld.

What does the legislation do?

H.14 requires manufacturers and contract testing facilities to use test methods that replace animal testing *when they are available and provide information of equivalent or better scientific quality and relevance*. As new methods are approved for use by regulatory agencies, Vermont companies would be required to utilize these technologies and avoid unnecessary animal use.

Why is this legislation needed?

Animal tests are not the best predictors of human safety. No longer considered the gold standard of testing, animal models carry serious scientific limitations. Different species can respond differently when exposed to the same chemicals. Consequently, results from animal tests may not be relevant to humans, under- or over-estimating health hazards. In fact, 90% of human drugs fail during clinical trials after having completed animal studies either due to unexpected toxicity or lack of efficacy. Alternative methods, based on human biology, are much more likely to provide results predictive of human responses.

Non-animal test methods can save time and money. Non-animal alternatives provide more efficient as well as more effective product safety assessment. Human cell-based tests and advanced computer models, for example, deliver human-relevant results in hours or days, unlike some animal tests that can take months or years.

Animals suffer in product tests. Thousands of animals may be used for a single test, and they can suffer for months or years before being killed. Mice and rats who have been purpose-bred for research make up roughly 95% of animals used in research and testing, and yet they are excluded from the minimal protections of the Animal Welfare Act.

There is a global trend toward adopting non-animal science. Four states have already passed similar laws including Virginia, New Jersey, New York and California. In 2016, Congress revised the Toxic Substances Control Act, which included a provision directing Environmental Protection Agency to reduce and replace the use of animals in chemical testing. Other federal agencies, such the Food and Drug Administration, Consumer Product Safety Commission, and the Department of Defense are also actively pursuing research and development of new non-animal methods. In addition, 12 states and 45 countries have passed laws to end the use of animals in cosmetics testing.

Vermont should be a scientific and technological leader in non-animal alternatives. 21st century science is rapidly moving away from outdated animal tests as many faster, less expensive, and more human-relevant alternative methods have become available, including artificial human tissue, organs-on-chips, and sophisticated computer programs. This legislation will ensure that companies in Vermont are taking advantage of these new testing strategies as soon as they