The Price of Progress: Science or Suffering?

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You wake up in a tiny, cramped metal cage that you share with a hundred other people. You're pressed shoulder-shoulder like sardines and there isn't any space to move. The florescent laboratory lighting hurts your eyes, and your body is sore all over from another rough night's sleep, if you slept at all. This is just the start of your day. You sit around for hours, festering in your own feces and urine until, at some point, a giant hand reaches down and yanks you out. But the moment's reprieve is hardly a vacation. For the next several hours, you're studied and experimented on. You're injected with several substances that leave you tingling and numb. At some point, you're put back in your packed, filthy cage and left to rot, confused and in pain, until you're needed again. This is your life. It is all you've ever known. This is the reality of over 110,000,000 animals a year (PETA, 2025). Animal testing has been around for hundreds of years, and it is an outdated, barbaric practice. By 2025, it is an outrage that we do not have an alternative, more civilized solution.

One of the main arguments for animal testing is its applications in biomedical research, cosmetic testing, and public safety. Often times, animal testing is used to test new drugs and cures for ailments and injuries before they are tested on humans, which greatly reduces the risk to humans. In researcher Marlena Williams' powerful essay conveying both the benefits and the tragedies of animal testing, "Why We Still Test on Animals, Explained", she states, "While animal testing has certainly helped to usher in many life-saving medical and scientific advancements over the years — including the discovery of penicillin and the development of the polio vaccine — it comes with its own unique set of limitations and concerns" (2024). While it is certainly true that animal testing has been instrumental to biomedical advances in the past, such as discovering beneficial cures and vaccines, it does not excuse the archaic practices that are still used and often unregulated. For example, "Draize tests" are a governmentally endorsed method that is used for testing the safety of chemical products around the eyes following several

tragedies of untested products that led to the deaths of a hundred people. The Draize test involves restraining a conscious animal, often a rabbit, and applying chemical products directly to their eyes, then observing the effects (which often include, swelling, redness, hemorrhaging, and blindness) over a set period of time (Humane World for Animals, 2022). Another common practice is the practice of removing organs/body parts, forcing animals to get addicted to substances, infecting them with diseases, and more (Down to Earth, 2024). The concept that animal testing spares/aids human lives is true, as seen by the Draize tests preventing future human deaths from poorly regulated cosmetics, and the cure for polio being discovered via animal testing as well. The moral dilemma is whether or not the millions of animals tortured and murdered during the testing process is worth it to save lives and avoid injury. In my opinion, there are many ways to spare animal lives while still making sure products are safe for human usage, such as simulations or organoid testing.

While I understand the value of animal testing, it's unacceptable that it's deemed as a "necessary evil" in the name of progress. As Williams addresses, animal testing for treatment purposes is inaccurate the vast majority of the time: "About 90 percent of drugs fail once they reach the human clinical trial stage" (Williams, 2024). This is because while laboratories are able to control a lot of external and confounding factors, they cannot simulate human systems nor reduce stress/environmental factors that come with an animal living in a laboratory all their life. Animal cells in mice and other small animals are not an accurate representation of human cells, even if they are the closest thing we have previously had access to. Instead, I believe that alternatives need to be explored. We have the technologies now to generate and copy chains of cells and DNA in laboratories which can be used to test the effectiveness of treatments, vaccines and cures that will not harm another living creature. In research done on the efficiency of animal testing vs the current capabilities of technology, Nature Editorial author states, "Induced

pluripotent stem cells — which have been ‘reprogrammed’ so that they can turn into any cell type — offer a way to generate human cells from skin or blood samples” (Nature Editorial, 2024). We might not have had access to this resource years in the past, but we do now, and while an organoid cannot entirely replicate a whole organism, it can be used to simulate and is an alternative that can greatly reduce the number of animals used in animal testing.

Additionally, another important point Williams brings up is the role of animal testing involving pesticides: “The Food, Drug and Cosmetics Act further authorizes the EPA to regulate pesticides. When registering a new pesticide, the EPA requires companies to perform a 90-day oral toxicity study on both rodent and non-rodent species — typically cats and dogs —as part of its human health risk assessment.” Animal testing has been undeniably important in testing of pesticides' effects on the environment and its effects on wildlife. Ironically, they kill millions of rodents in laboratories to save a hundred thousand rodents in the wild. In a world where the environment and climate continue to be a pressing concern and run-off from agriculture has been leading to eutrophication in lakes, it seems that animal testing would be necessary. But you cannot have a discussion on the benefits without taking into consideration the detriments. The animals used in pesticide testing are force-fed lethal doses of chemicals to observe the quantity of chemicals they can withstand and the effects of the chemicals on their physical state. An estimated 50% of animals are killed during these tests (PETA, 2025). There is absolutely no reason why we need to be wasting this many lives in a laboratory to test chemicals that we have previous research on. Letting this type of torture go unregulated is archaic and lazy. Instead, we should be focusing on alternative outlets for chemical testing or become stricter on pesticide usage.

I believe that there are, like with biomedical testing, alternatives that can greatly reduce the number of animals utilized in pesticide testing. This can be done by changing the standards

that are traditionally used; OPP, the Office of Pesticide Programs, is responsible for regulating the usage of all pesticides in the United States. Recently, with pressures and negotiations with PETA, OPP has agreed to accept a “non-animal eye irritation testing strategy” regarding common cleaning products and conventional pesticides (PETA, 2025). They are also reducing the number of tests required for passing a pesticide, as many of the tests overlap in results and thus can be reduced in quantity. While this doesn’t completely eliminate the cruelty of animals involved or animal testing entirely, continuous pressure will reduce the size of the animal testing industry, and the horrific pain caused.

Animal testing has been around for generations and has been beneficial for both biomedical, cosmetic, and pesticidal advancements and safety checks. It is nonetheless a barbaric and ancient practice that results in the death and torture of over one hundred million animals a year. With the advancements in technology and science our society has made over the course of the last decade, there is no reason for industry to be so large-scale in current times. When there are alternatives, such as laboratory-generated organoids, human volunteer studies, and abilities to reduce the range of animal testing, there is no reason for over one hundred and fifteen million animals to be subjected to torture a year. If you’re 18 years old, that’s 2,070,000,000 animals that have been slaughtered and tortured since you were born. Like Williams writes, “By replicating the complexity and specificity of human organs, organoids offer an accurate, cost-effective and humane alternative to using animal models, so why aren’t we using them?” (Williams, 2024). Animal testing is no longer the most effective and humane method of discovery, and it’s time we open our eyes and set our sights to new alternatives and solutions.

References

Down to Earth Organic & Natural. (2024). The Cruelty of Lab Animal Testing. Down to Earth Organic & Natural. https://grants.nih.gov/policy-and-compliance/policy-topics/air/why-animals-are-used-in-research

Humane World for Animals. (2025). It's time to move past the cruel, inhumane practice of testing cosmetics on animals. *Humane World for Animals.* https://www.humaneworld.org/en/blog/its-time-move-past-cruel-inhumane-practice-testing-cosmetics-animals

Nature Editorial. (2024, July 12). Animal Research is not always king: researchers should explore the alternatives. *Nature*. https://www.nature.com/articles/d41586-024-02314-8

PETA. (2025). Animals are Not Ours | Pesticides. *PETA*. https://www.peta.org/issues/animals-used-for-experimentation/pesticides/#:~:text=These%20tests%20involve%20feeding%20a,and%20inhalation%20methods%20of%20exposure

Williams, M. (2024, April 19). Why we still test on animals, explained. *Sentient*. https://sentientmedia.org/why-we-still-test-on-animals/