

Pharmaceutical products such as cosmetics and animal testing essay sample

[Environment](#), [Animals](#)



In clinical research, drugs, medicines and including pharmaceutical products such as cosmetics were produced. However, before it can be released to the consumers, the products need to be tested first to determine whether they are safe or not. Animal testing has become one of the primary options in obtaining results for biological effects of chemicals on human body. It is widely practiced all over the globe. Animals are burned, mutilated, poisoned and exposed to lethal chemical in the process resulting in deafness, blindness and permanent defects.

As human, we need to play our role in ensuring that these poor little souls are free from any form of abuse. In order to do so, we need properly understand why is it important to stop animal testing and how can we stop them. An article by Heather Dunnuck calls upon people in general in order to inform on why we should stop animal testing. Dunnuck begins by highlighting the data collected by F. Barbara Orlans from her book *In The Name of Science: Issues in Responsible Animal Experimentation* that 60% of all animals exist in this world are used in biomedical research and product safety testing.

She stated that when animals are used in research their rights are violated. She then strengthen her point by writing a saying from Tom Regan, a philosophy professor at North Carolina State University that animals have a basic moral right to respectful treatment. Dunnuck also strongly believes that animals and humans are the same in many ways. However, since animals do not vocalize thus decisions are made for them. Animals do not willingly sacrifice themselves for any research.

The different studies from The American Veterinary Medical Association stated that the animal pain is an unpleasant sensory and emotional experience which involve specific region of the body that can cause potential damage to the tissues . Dunnuck stresses that the suffering of the animals face during the experiment or research not worth to any human benefits. She also included the type of experiment and how it is done. Dunnuck also cited the evidence by F. Barbara Orlans that the animals suffer from vomiting, diarrhea, paralysis, convulsion and internal bleeding.

Dunnuck also cited evidence by Michael Balls, a professor at the University of Nottingham that the test done on the animals such as Draize test and LD50 to examine product toxicity is not scientifically unjustifiable but these tests have not been eliminated. Animal testing have led to many failures in clinical research as it is not effective (Overton, 2006). The primary reason to this is the fact that the biology of animals and human is different. Even though there are some similarities between them, they react differently towards the drugs exposed to them. Thus, many animals die or become defective every time the tests failed.

Kelly Overton also mentioned that billions of dollars already being spent on finding cure for cancer in mice but so far had failed to replicate cancer cells in animals. Logically, if we want to find the cure for human diseases or if we want to know what the effects of drugs towards human, we need to use the cells from human in the studies. Using animal for clinical research is an out-dated method to be used in this modern era (Overton, 2006) as there are

many advanced technologies out there. Robin McKie, a science editor from The Guardian reported that there were 4.

12 million scientific procedures that had been performed on animals in the year 2013 alone. He also stated that projects that involve animal testing are often poorly designed resulting a huge amount of loss in resources in the form of money, energy and not to mention the lives of the animal. Scientists in the United Kingdom had been ordered by research agencies to improve their way of handling animals in experiments. Projects to test new medicines for strokes, cancer and other conditions are often inadequately constructed, thus producing insignificant results (McKie, 2015).

These type of experiments cost researchers a huge amount of fortune but they usually only have a limited amount of funding. Thus they need to optimize what they have in order to keep their research running. McKie explains that some researchers are trying too hard to restrain the cost of their project and have abbreviated the number of animals needed for the study. This contributes to the inaccuracy in detecting the biological effect of the drugs tested. Contrarily, excessive number of animals used in experiments can lead to a huge loss of lives. As the saying goes, Rome was not built in a day.

We cannot just stop animal testing all at once. According to McKie, the new guideline for animal testing introduced by the Research Council UK can help in curbing this problem a tiny step at a time. Researchers need to obey to this new guideline if they wish to keep their funding. They need to prove that

their work will achieve physiological insights as well as the ability to produce statistically solid data. Scientists now can portray their detailed understanding in the complexity of the issues involved in designing and analysing experiments involving animals.

The number of animals used will be justified in an experiment to ensure meaningful results can be obtained (McKie, 2015). Another way that can help in preventing animal testing is by using human cells in research instead of animals'. Human biological systems are more complicated than animals. By replacing animals with human cells in clinical trials, more accurate effects of drugs can be observed. This is due to the differences in the physiologies between animals and humans (Overton, 2006).

Kelly Overton suggested in her articles that adult stem cells can be used as it is not complicated to be conducted and will also bear no complications during the test performed. In addition, medical testing by using adult stem cells has become the world's leader in the medical field and one of the diseases that has already found its cure is thalassemia (Overton, 2006). Jody McCutcheon, who is well known as an Eco-tech writer that often features in articles involving human and environmental health, wrote an opinion piece on facts and suggestions that aim to create an awareness about the cruelty of animal testing.

McCutcheon calls upon the researchers who are directly involved with animal testing in laboratories and the public consumer who uses many products that conduct animal testing to start a concern about the ways and how to stop this cruel activity. He begins by mentioning about the use of other alternatives to

substitute animal testing such as advance computer modelling or known as in silico to carry out experiment for new drug and health treatment.

Recently, researcher has developed several advance computer simulations of human biology that can track the development of diseases.

The simulations that are developed include the heart, lung, kidney, skin, musculoskeletal and digestive system. These simulations are reliable because it can predict how drugs interact with human body. McCutcheon provides another example in brain-imaging technology, where researchers are able to observe inside the brain to study the progression and treatment of brain illness and thus replacing the act of animal testing. Besides, he also mentioned that human-patient simulators have taken place of animal test subjects in ninety-seven percent of United States medical school.

The human simulator provides an accurate biological response in medical interventions. It is because, the simulators are built with high tech simulators that breathe, bleed, convulse, talk and even die just like human. They mimic illnesses and injuries, which the offer an accurate biological responses in medical interventions and introduction of medications. He stress that this will help to improve the emergency surgical techniques without the need to cut into live rats, cats or dogs.

McCutcheon also believed that human-patient simulators are better teaching aids for those who study physiology and pharmacology in which animals are cut up. The tone of the author is natural when he provides his points in the article. Animal testing issues should not be taken lightly as it involves souls

of innocent living creatures. As we are heading towards the future and advances in technology, we should open our eyes and find the most suitable solution in gaining our objectives. We need to consider the effect of our action to the environment as they are irreplaceable once they are gone.