

Should scientific
experiments on
animals be allowed



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Anti-vivisectionists would have us believe that medical research laboratories resemble the freak factory depicted in H. G. Wells' *Island of Doctor Moreau*, yet scientists would have us believe that they are humanities' last, best hope for medical salvation. Who do we believe and more importantly who should we believe? It is an area of debate fraught with claim and counter claim.

Some of the many claims of abolitionist groups are that animal biology and disease bear no relation to their human counterparts, animal research and testing has not resulted in any medical advances, the experiments are cruel to the animals and that there are no regulations to safeguard the animal's welfare. Most people are of the view that animals hold no place in the search for medical cures for humans, as animals are quite plainly different.

Therefore, the argument goes, animals have different illnesses and diseases from people and different reactions to the drugs being designed for human use.

All mammals, however, have the same organs performing the same functions but with minor differences. It is these small differences, which point the way for scientists trying to find a treatment or cure for an illness.

Diseases such as cancer, asthma and heart failure are just some of the ailments common to animals and humans and can hold the key to a treatment or cure common to both. Further confirmation of the diseases shared by mammals can be found in a list of 350 animal diseases with a human counterpart compiled by the veterinarian Charles Cornelius (1969) who believes that the study of animal illnesses is " a neglected medical resource".

It is this similarity between diseases which has resulted in some of the medicines we now take for granted. Animal rights groups have often made the claim that animal testing has not made any contribution to medical progress, but the facts don't bear this out. If we take just three instances of where animal research has greatly progressed the medical treatment and prevention of illness, it is hard to see how this claim is justified. In the 1920s Banting and Best found that injecting pancreatic cells containing insulin hormone, relieved the symptoms of diabetes in dogs.

It was then found to have even better results in humans, not only saving many millions of people in the following years but the lives of their canine companions. Smallpox and Polio, perhaps two of the most dreaded illnesses of the last two centuries are now mostly unheard of in the developed world. A smallpox vaccination developed by animal researchers and used in a vaccination programme instigated in 1967 has not only eradicated the disease but, according to J Grant is estimated to have made health care savings of \$1 billion " three times the cost of eradicating the disease".

Presumably, a similar financial by-product, as well as the prevention of paralysis of 200, 000 children a year by the year 2002 will be made possible by the polio vaccine developed using animal experimentation. Anti-vivisectionist maintain that the results of these vaccines are merely coincidental, citing better standards of sanitation, water and diet as the reasons for the dramatic fall in infectious diseases.

Again the facts contradict this claim. When the H. I. B. vaccine for meningitis was found to protect mice and rabbits from the disease, a vaccination

programme was introduced into the United Kingdom in late 1992. Following these vaccinations, the cases of H. I. B. meningitis fell by over 70% in the first three months of 1993. The measles vaccine administered in 1994, reinforces the scientists' argument. Before vaccination, the medical profession were expecting around 200, 000 cases of measles, but due to the vaccine there were only 21 reported cases. In each case measles occurred in babies too young to be vaccinated or in families who opted not to receive the vaccination.

Perhaps one of the greatest bones of contention between the scientists and the animal rights activists is the level of cruelty and pain inflicted on the animals during development of new treatments. The medical research fraternity in the United Kingdom say that while there are some experiments where pain and discomfort are unavoidable, they do not constitute anywhere near what their critics claim. In the United Kingdom this is mainly due to the Animals (Scientific Procedures) Act 1986, which states that where possible alternative forms of testing must be used and research proposals must be vetted by the local ethical review board.

The Act also insists that the minimum pain and discomfort must be caused to the animals involved; this results in anaesthetics and pain killing drugs being administered. These alternatives include cell cultures, patient studies, computer-aided design and whole organ testing. Unfortunately animal testing has to be carried out because it is illegal and unethical to administer new drugs to patients unless the medical profession are confident that the patient will benefit and not be harmed.

According to the Research Defence Society (www.ds-online.co.uk) scientists work to the "three Rs"; that is anything, which reduces use of animals, refines the use of animals to minimise suffering, or is a replacement for animals is a direct alternative. This has resulted in only around 10 pence in every pound of research funds being spent on animal studies. From the discovery of insulin onwards scientists have been finding cures or treatments for diseases with growing frequency. Many of these would not have been possible without animal testing.

The list of diseases includes organ transplants, mental illness, leukaemia, asthma and AIDS. With continued research, it maybe that new treatments or even cures for illnesses such as cancer or variant CJD will be found.

Unfortunate as it may be it is difficult to see how this can happen without the use of animal research. Perhaps in the future we will be able to dispense with a practice that many people see as abhorrent, but until that time comes animal research is probably the best method of discovering, testing and researching new medicines.