

Veterinary research (1)

What is veterinary research?

Veterinary research is a broad term that covers many different types of scientific study. Some types of research are designed to investigate how the bodies of normal, healthy animals function, to understand what goes wrong during illness. Others look at the way in which diseases develop or spread and what can be done to treat or prevent the disease process. Some veterinary research also aims to protect human health by looking at infections in animals that do not cause harm to the animals themselves, but that could cause diseases in people who eat animal products.

A combination of approaches are currently used to tackle all of these questions, including studies of cells and molecules, computer technology, studies of how disease naturally occurs in animal populations and animal experiments.

It is, of course, important that sick animals are always treated by a vet and that pet animals are routinely vaccinated to protect them from diseases. There are many different types of veterinary medicines. For example:

- antibiotics – to fight bacterial infections
- anti-inflammatory drugs – to provide pain relief for conditions like arthritis
- anti-parasitic drugs – to treat infections of parasites like fleas or intestinal worms
- vaccines – to help prevent animals catching and developing contagious diseases.

Some scientific issues

As with medical research, all of the above approaches have limitations. For example, cells on their own do not provide a good 'model' of the complete immune system of an animal. Sometimes one type of animal, for example a mouse, is used to model another type of animal, such as a horse. A hotly debated question is then whether one species of animal is really a good model for another – are such experiments scientifically 'valid'? There is no single answer to this question and the use of animals must be critically examined in each and every case.

Some ethical issues

Although huge numbers of animals benefit from veterinary medicines, these medicines have to be tested on other animals to see if they are safe and effective. Therefore, one set of animals benefits at the expense of another. This presents a dilemma for everyone who cares for animals and does not want them to suffer. Making decisions about what is right and wrong in such circumstances is very difficult.

Veterinary research (2)

However, there are some circumstances where there are additional considerations that can affect people's views. For example, while many veterinary medicines save animals from life-threatening diseases, others have been developed to treat conditions in animals that have been caused by humans.

A recent example of this is the anti-obesity drugs developed for overweight dogs. Without doubt, obesity is a serious problem, but it is caused by a lack of exercise and overfeeding. The drugs have been developed in laboratory dogs, which caused them considerable suffering. Is it right that other dogs should have to suffer to develop treatments when the problem should be avoidable with proper care and attention to diet?

What are the animal welfare concerns?

Even though scientists may be able to perform some of their research without harming animals, ultimately the law requires all veterinary medicines to have been tested on animals before they can be used, to show that they work and are safe. These tests can cause a great deal of suffering to the animals involved. The nature and length of suffering an animal experiences during the developing and testing of a veterinary medicine often depends on the severity of the condition for which the medicine is intended.

For example, laboratory dogs can suffer substantially when they are used to develop and test medicines designed to prevent or treat life-threatening conditions in pet dogs. In order to see whether a vaccine will protect against a life-threatening disease, some dogs used in the test will be given the vaccine and some will not. Later, all the dogs will be infected with the disease that the vaccine is designed to protect against. The unvaccinated dogs can become extremely sick, and may even have to be killed to end their suffering. The test shows that the vaccine works if all of the vaccinated dogs stay healthy.

For other types of product (e.g. worming treatments, flea collars and specialist diets) the animals used are unlikely to suffer major harms during the tests. This is because these products are designed to treat relatively minor conditions that only become serious if left untreated for a long time.

