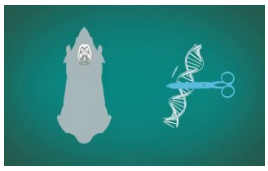

Dispelling myths around animal research

eslvideo.com Quiz by: 13parvana

1. What is the main purpose of using animals in scientific research?

○ a.) To entertain people

○ b.) To understand biological and environmental systems

○ c.) To create cosmetics

2. What is illegal in the UK regarding animal research?

○ a.) Using animals if there is an alternative

○ b.) Using animals for medical research

○ c.) Using animals for veterinary medicines

3. Which animals are specifically mentioned as not allowed for testing?

○ a.) Cats and dogs

○ b.) Great apes

○ c.) Mice and rats

4. What type of animals are mainly bred for experiments?

○ a.) Dogs

○ b.) Mice

○ c.) Cats

5. What disease is mentioned that a vaccine has been tested for using specially bred mice?

○ a.) Diabetes

○ b.) Malaria

○ c.) Tuberculosis

6. What was discovered using dogs that helps treat type 1 diabetes?

○ a.) Insulin

○ b.) Vaccines

○ c.) Antibiotics

7. What do the 3 R's stand for in animal research?

○ a.) Reduce, Replace, Refine

○ b.) Reduction, Refinement, Replacement

○ c.) Research, Review, Report

8. What is the goal of the National Center for the 3 R's?

○ a.) To increase animal use in research

○ b.) To find alternatives to using animals

○ c.) To promote animal testing

9. What year did more than 80 organizations pledge to be more open about animal research?

○ a.) 2010

○ b.) 2014

○ c.) 2020

10. What is hoped to be achieved by being more open about animal research?

○ a.) To confuse the public

○ b.) To help the public understand and form their own opinions

○ c.) To stop all animal research

Transcript

The UK is home to a great deal of scientific research, some of which uses animals. Animals are studied to understand how biological and environmental systems work. Scientists can then use that knowledge to create human and animal medicines or guidelines for healthy living.

In the UK, there are strict laws about the use of animals. It is illegal to use an animal for an experiment if there is an alternative, such as a computer model. Scientists are not allowed to use an animal to test cosmetics or do tobacco research, or use a great ape.

Around half of experiments involve the breeding of genetically manipulated animals, mainly mice. This could mean the birth of the animal, the fertilization of an animal, or the birth of an animal likely to develop a disease. For example, GM knockout mice can have a gene removed to see what that gene does. Specially bred mice have also allowed us to test that a vaccine for malaria, which kills more than half a million people a year, doesn't damage human organs.

Animal research also gives us veterinary medicines like vaccines for badger tuberculosis, canine distemper, and feline leukemia. Insulin, used to treat type 1 diabetes, was discovered using dogs, which are also affected by the disease. There are 14,000 diabetic dogs alive in the UK as a result of insulin. In fact, practically every human and animal medicine has been developed using animals.

Animals can tell us so much about our common or conserved biology because we evolved from a common ancestor. For instance, pig insulin varies from human insulin by just one amino acid and was used for most of the 20th century to keep people with diabetes alive.

In the future, it is hoped that there will be further technological alternatives available to animals in research, such as this artificial airway developed by scientists from the United States. In the UK, investment in finding alternatives is led by the National Center for the 3 R's. The 3 R's stand for reduction, refinement, and replacement. In other words, reducing the number of animals used in an experiment, refining experiments so that suffering is reduced or removed, and developing technologies which can replace animals altogether.

However, for now, we still need to use animals in medical, veterinary, and environmental research, so we have a strict system of licensing. In 2014, more than 80 of the biggest organizations that do animal research in the UK pledged to be more open about their work so the public can understand how and why research is conducted. We hope that these efforts will help members of the public make up their own mind about what they think about animal research.