



The use of animals in medical research: *Scientific arguments for and against*

HELP SHEET: Technical terms

Body System: a group of organs that work together to perform one or more functions in the body of an animal. Each organ does a particular job, and is made up of distinct tissues (types of cell). For example, the *Circulatory System* consists of the heart and different blood vessels and has the function of transporting materials around the body in the blood.

Cell Culture: a group of living (human) cells that are grown and kept alive in a liquid containing all of the nutrients they need to live and multiply. Cell cultures are usually kept in petri dishes. The cells can be examined under a microscope and can be tested in various ways to examine the effects of drug treatments on them.

Computer Model: A computer program that simulates human body functions so that the effects of a drug treatment can be predicted.

Mammals: Warm blooded animals with backbones, hair and which lactate (produce milk for feeding their young). Biologically, Humans are mammals. All mammals tend to have similar body systems and organs.

Micro-dosing: the administering of doses of drugs that are too small to cause bad reactions, so are safe to use on humans. An understanding of the effect of the micro dose can be found by analyzing a blood sample from the patient

Microfluidic chip: A tiny piece of material (e.g. glass or plastic) with channels engraved on it. Cells can be grown on it and liquids pumped along the channels to make a 'living model' of what happens in real body systems.

Primates: A group of mammals including monkeys, apes etc. that are the animals most similar to humans.

Selective reporting: Where only the evidence that supports the argument is reported, evidence that does not support the argument is not reported.

Thalidomide: a drug that was marketed as a sedative and treatment for morning sickness in pregnant women in the late 50s and early 60s. This drug subsequently caused babies to be born with a range of disabilities.



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HELP SHEET: Writing Answers

Remember to include:

- *Claim*
- *Evidence*
- *Warrant*

Sentence starters for Q 2 & 3

I think that the strongest scientific argument **for/against** animal testing is....

The evidence for this is.....

This supports the argument because....

Further evidence that would support this would be