MDC MAX-DELBRÜCK-CENTRUM FÜR MOLEKULARE MEDIZIN IN DER HELMHOLTZ-GEMEINSCHAFT

LABOR TRIFFT LEHRER

Standpoints on Animal testing in biomedical research

Goals

These standpoints provide a basis for discussions on the use of animal experiments in biomedical research and ethical aspects of the situation.
“Standpoints” are suitable for use in high school biology or ethics classes.

Participants

“Standpoints” can be used in discussions with groups who have little background in the subject area. Participants should have a basic idea of the relationship between biomedical research and the development of medical applications. For example, they should know that researchers develop and use animals as model systems to study human disease processes. You can read more about research and animal testing here:
http://www.understandinganimalresearch.org.uk

Acknowledgements

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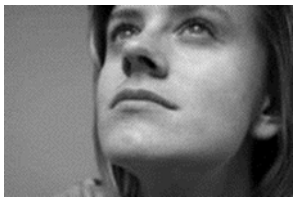
The overall scheme is based on discussion materials on theme of Stem cells, developed by EuroStemCells (www.eurostemcell.org) and the game “playdecide” (www.playdecide.eu: “Animal testing in biomedical research”).

All opinions and viewpoints expressed in “**Standpoints on animal testing in biomedical research**” are derived from interviews with individuals and do not necessarily reflect the opinions of the authors. Names of interviewees have been changed.

Further information

For further information please contact “Labor trifft Lehrer” at LaborTrifftLehrer@mdc-berlin.de

Julia Sanders, scientist 	Julia originally intended to become a physician, but changed her mind during her studies and now has a PhD in Biochemistry. During her studies she carried out her own experiments not only with mice and rats, but also human material obtained during autopsies, patient studies, etc. Working with human tissue didn't evoke any moral or ethical issues for Julia, because patients had made a decision to volunteer the material. But this was not true for mice or rats. Her background in medicine and the basic research she conducted during her PhD have convinced Julia that animal experiments are extremely important and play a crucial role in medical research that can't be achieved through other methods. At the same time, she has decided that she can no longer perform such experiments herself.
Peter Brand, veterinarian 	Peter is both a veterinarian and a scientist. His doctoral work involved the establishment of a mouse model that would help scientists investigate a common form of disturbances in cardiac rhythm. Using this model, Peter was able to discover a substance that had a positive effect on the disease. He is currently setting up a company with the goal of transforming the results of this work into new medications. Peter says that whenever possible, he aims to limit the amount of work done on animals, following the three basic principles of animal research: Reduce, Refine, Replace. Animal experiments should not be carried out if they aren't important and should only be performed by experts. However, they remain necessary, he says, because disease processes in an organism are so complex that they can only be studied in the context of an organism. This means they will never completely be eliminated. Peter says that it isn't easy to carry out experiments on animals, but he is motivated by the idea that his work will soon help far more people and animals than the number that suffered in experiments.
Paul Bergener, cancer patient 	Paul has a form of leukemia for which on overall, patients have a 55% chance of survival. He has learned that a new method of treating his disease is currently being developed. Before a clinical trial can be offered to patients like Paul, the treatment must be tested in animal experiments. Paul finds it terrible that animals must die for him, but he is just 30 years old and doesn't feel prepared to die.

Bettina Möhler, animal rights activist 	Bettina believes that animals and humans have the same status. She is a Vegan who uses no animal products and has two dogs. She opposes every type of animal experimentation, whether in research or the cosmetics industry. She feels that today's medicine has made enough advances and further research is unnecessary. In principle this work aims to cure only "civilization diseases" that humans have brought upon themselves through environmental pollution and other means. Bettina also believes that biomedical research hasn't kept its promises – people still die from cancer – so animals should stop dying for meaningless reasons.
Stefan Lütze, trainee 	Stefan is in the first year of training in business in hopes of entering the branch office communications. So far he has had no contact with animal experiments and probably will never have one; the topic isn't relevant to his field. Although Stefan has never had much interest in science, he is convinced that basic biomedical research is essential in our lives – it saved, for example, the life of his grandfather. Stefan can't understand people or organizations who mount demonstrations against animal experimentation or even attack scientists. After all, animal experiments are regulated by strict laws and are even required in areas such as pharmaceutical development.
Irina Hoffmann, animal care officer 	Irina is a trained animal care officer and works in a facility where mostly mice and rats are bred and raised. She loves animals and chose her profession deliberately, with care. In her daily work she ensures that the mice she cares for have the best conditions possible. She knows that the animals will die, sooner or later, but this occurs also in nature. The most important factor is that their deaths have a purpose. Irina would prefer that animal experiments only be used in search of solutions to serious diseases such as Alzheimer's or cancer that affect large parts of the population. She is happy not to be directly involved in animal experiments herself, because she could never cause distress to an animal – whether a mouse or a sheep.

Rainer Wagner, critic of animal experiments 	Rainer belongs to an organization of critics of animal experimentation. Their activities aim to generally stop animal experiments. Rainer knows that at the present time, this is not realistic. Many reports from his organization demonstrate that more laboratory animals are used than necessary. He hopes that public discussions of animal laboratories and research into alternatives to animal experiments will lead to a situation where one day, they will no longer be required. More investment should be made in the search for alternative methods. If we really want to, we can certainly dramatically reduce the number of animal experiments that are being carried out!
Kuljeet Khan, scientist 	Kuljeet comes from India, where she studied biology and worked for several years in the field of population genetics. At the moment she is working on her PhD and is studying DNA sequences that can change their position within a genome. Although many of her colleagues have used animals in their research, Kuljeet has not had to so far. If it is necessary, Kuljeet says she will have no problem carrying out animal experiments – to answer a scientific question the most adequate method should be used. Kuljeet likes the fact that German law exercises a tight control over animal experiments; a reason must always be given when asking for permission to kill an animal. This ensures that no animal dies without a purpose and requires that scientific questions are more carefully defined. Thus these laws on the use of animals promote scientific research.
Theo Schmidt, sociologist 	Theo is a sociologist who has no contact with animal experiments. He has an aquarium at home and would like to have a cat as well – but not in an apartment in the city center! Theo admits that his knowledge of animal experiments is limited – he doesn't know how, where, or why they are carried out. Most of what he hears comes from reports in the media on "special cases." Worldwide, there are so many other problems that deserve our attention: financial crises, wars, social inequality. Animal experiments call to mind a classic image of an ape with electrodes in its head. It's a bad image, he says, but are experiments on mice better? Life is life – who would argue with that? – but Theo also does not want to prevent medical progress.

Animal experiments in biomedical research: What's the right point of view?

Read the information derived from interviews with the individuals above.

Decide which point of view the interviewees represent. Write their names in the appropriate place in the table below.

Standpoints	**People who agree**
Standpoint 1 The lives of humans and animals have the same value. Animal experiments should be stopped immediately.	
Standpoint 2 Animal experiments should only be carried out in research directed at life-threatening diseases such as cancer or AIDS.	
Standpoint 3 Animal experiments should be allowed in biomedical research as long as the suffering of animals is kept to the minimum and no alternatives are available.	
Standpoint 4 Human suffering is more important than that of animals. Everything possible should be done to reduce human suffering.	

Part A: The viewpoint of our group

What's YOUR opinion? Discuss the views of the interviewees in your group. Which person best represents your point of view?

Our group thinks that the best point of view is...
(Choose one of the concepts above or provide one of your own.)

We believe this because...

Part B: Further points of view to consider

1. Many people say that they do not object to animal experiments as long as they are only carried out on mice or "less developed" animals such as frogs or fish.

2. Many drugs for humans that have been derived through animal experiments are also used by veterinarians in the treatment of animals. Does this make animal experiments ethically permissible?

3. Should animal experimentation be exclusively permitted in the development of drugs (applied research)? Is it also permissible in basic research, where the goal is to understand the fundamental biology of an organism?

4. Many scientists say they accept animal experiments as a necessary evil, but would never carry them out themselves. Is this an ethically acceptable position?

5. German law dictates that every animal experiment must be approved. In the process, a scientist must justify a planned experiment, that its purpose is not only to validate experiments that have already been done, and that the three basic principles of animal work will be respected (Reduce, Refine, Replace). The commission which approves experiments includes representatives of animal protection organizations. Should the rules for approving experiments be tightened further?