

Ethics in Nanomedicine Worksheet

Using your Device, research the following:

For what kinds of research do scientists use animals for?

What Species of Animals are often used for research? Why?

What Benefits are there for using animals for scientific research?

Describe a scenario of animals being used for research.

What harm are animals known to be subjected to during scientific research?

How would you feel being used for research without a say?

Imagine you are a committed and invested scientist on the forefront of a new drug discovery that could potentially eliminate a major disease like cancer. However, you need to test that it is safe and works on a live organism before using it on humans. Taking into account ethical principles, what would be your reasoned course of action and why?

Dr. Edward De Bono describes 6 metaphorical hats as a framework of different aspects of thinking:

WHITE: What are the facts? Only data and information is considered, no interpretation, be objective and build a picture of all the facts.

BLACK: What's wrong with the situation? Negative aspects, Why won't it work, and what's the logic behind the failure.

RED: What do you feel about it? What do you fear, hate or love about it? What is your gut feeling? Express any hunches, does it feel right?

YELLOW: What's great about the situation or scenario? What are the things that will make it work? How can we get it to work better? Any positive suggestions?

GREEN: How do we develop a new view? Are there any new approaches or ideas or solutions that come to mind?

BLUE: This hat thinks with a cool head, considers the big picture, thinking about thinking, where are we now? What do we need to do next based on what we know?

Using your knowledge about Nanotechnology's uses in medicine, use Dr. De Bono's 6 thinking hats to describe your thinking about the pros and cons and ethics of nanotechnology in the medical field.

WHITE:

BLACK:

YELLOW:

GREEN:

RED:

BLUE:

What's your final reasoned judgement for the use of Nanotechnology in medicine?