The Ethics of Transgenic Animal Use

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Animal Domestication

- Humans and animals have always interacted with each other, but humans are unique in their capability to influence and change other animals.
Humans also use animals as a means to explore the world scientifically.
Technology and Biotechnology

- Technology can be defined as “The application of scientific discoveries to the production of goods and services that improve the human environment.”
- Biotechnology is the utilization of biological systems or living organisms as part of this process.
Biotechnology

- The National Agricultural Library defines biotechnology as ... “a set of powerful tools that employ living organisms (or parts of organisms) to make or modify products, improve plants or animals, or develop microorganisms for specific uses.”
- An amplification of domestication.
Transgenic Animals

- Transgenic animals are animals to which copies of a gene sequence have been artificially added.
- These animals carry and express genetic information not normally found in that species or organism.
What does this mean?

- Genetically modified animals have been intentionally designed to suit human purposes using modern technology.
Genetic Interventions

- Knockout technology consists of inactivation of a gene normally found in the animal.

- Transgenic technology involves insertion of a gene not normally found in the animal’s native genome.
Why create transgenic animals?

- Increased agricultural efficiency
- Ease of management of animals
- Improvement of human health
- Research
Two Principles Prevail

It is acceptable to use animals for human benefit.

Utilitarianism. The best action to take is that which produces the greatest good for the greatest number.
Ethical Issues

1. The species barrier and our right to “play God”.
2. Environmental concerns.
3. The potential applications of this technology.
4. Harm to animals.