

Annie Wallentine advocates a cautious approach to the development of genetically modified animals. She observes that the genetic manipulation involved in the creation of GMOs is on a “different level” than that used in selective breeding. This, combined with her sensitivity to the suffering of intelligent, experimental animals, is the basis for her condemnation of the Omega-3 Pig and the Enviropig.

Pigging Out
Annie Wallentine, Grade 12
Germantown Academy

Genetically modified organisms (GMOs) have potential benefits and risks. However, the genetic alteration of some animals that is currently occurring is not justified because the benefits do not outweigh the harms. It is not safe to assume that GMOs are ‘innocent until proven guilty,’ as in a court of law, but rather risky until proven otherwise. This is a completely new branch of science, so scientists should proceed with extreme caution. They should not be researching simply to see what is possible, but rather researching toward specific goals that will benefit society (Feister). And while genetically modified plants are worrisome, genetically modified animals are far more so because they are sentient beings with the ability to suffer.

Some animal testing is necessary and has a net benefit for society. Countless human lives have been saved after drug testing on laboratory animals, and, in cases such as these, testing is absolutely justified. However, animal testing and the stress, mutilation, and death it often entails are not universally justified, such as when the harm inflicted on the animal is not outweighed by the eventual benefit to society.

Some of the animal testing in the GMO research that is being conducted currently on intelligent animals such as pigs is not justified. Omega-3 pigs and Enviropigs are two

examples of GMO's whose development should not be continued. Omega-3 pigs are pigs that have been genetically modified to increase their levels of the nutrient Omega-3, which is beneficial to humans. However, this is completely unnecessary, as there are plenty of foods naturally containing omega-3, and this research is harmful to the pigs without creating a significant benefit to society. There are other, natural sources of omega-3, and humans should not tamper with the lives of other sentient creatures simply because they are preferable food sources to fish or walnuts, for example (Feister). Human preferences may be counted as a positive outcome, but the negative effects on and risks for the other creatures involved far outweigh those preferences.

Enviropigs are another example of GMO research whose benefits do not outweigh its costs. Normal (non-transgenic) pigs are unable to digest the phosphorus in their grain-based diets, and so must have supplemental phosphorus added to their food (Guelph). This creates a large amount of phosphorus in the pig manure, which can be potentially harmful to the environment if it is absorbed into the soil and makes its way into aquatic ecosystems as runoff. Here, the nutrient can cause eutrophication, which involves a depletion of the dissolved oxygen level causing the death of many aquatic organisms (Campbell). Enviropig manure has up to 60% less phosphorus, posing a significantly decreased risk to the environment (Guelph). This appears to be a good thing, but it is important to note that cereal grains are not the natural diet of pigs, and that humans have created the problem of phosphoric manure through their farming practices. If pigs were fed grasses and other foods in their natural diet, they would not need the supplemental phosphorus, and their manure would not contain such high levels of phosphorus. However, because it is more cost-effective to feed pigs these foods, scientists have

researched options such as genetic modification instead addressing the cause of the problem. The animals could be spared the testing, and the time and money could go to other, greater problems, if people would consider more natural solutions. Enviropigs are an example of an unethical solution to a human-created problem – causing unnecessary suffering to animals simply because it is preferable to changing the current farming practices.

Humans have been tampering with nature, through selective breeding and other methods, for a very long time. However, humans are taking their interference to an entirely new level by introducing genes from other species into domesticated plants and animals. Humans are designing, not selecting. Because of this, scientists should proceed cautiously. If their research can effect positive change, such as improved animal health and production, then perhaps it should be investigated further, as these are areas of benefit to the human population. Greater access to food and healthier animals are a net positive when compared to the costs of animal testing. However, the current research has not been beneficial enough to outweigh the harms. Enviropigs and Omega-3 Pigs are science's answer to human problems (non-environmentally friendly farming practices and heart disease), without considering the costs to other organisms. Although animal testing is absolutely justified in cases where there is great benefit involved (such as saving lives), the creation of these organisms whose genes are being dramatically altered is not beneficial enough. There are other solutions to these problems, and altering an animal's genes is not the answer.

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