

# Genetic engineering

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From banana vaccines to glowing animals, scientists are able to accomplish unbelievable things within the field of genetic engineering.

The science of genetic engineering is still in its early stages, and scientists are discovering progressively more about the genetics of humans and other organisms as years go on. Living in a world where science is quickly advancing, some people believe they have gone too far, while others think they should explore as much as they can. On a smaller scale, scientists are able to genetically alter certain foods for numerous purposes. They alter certain crops in order to obtain a better harvest and limit the use of pesticides. For example, corn is altered to be more resistant to pests as well as harsh temperatures and venomous poisons are added to cabbage crops to protect them from caterpillars (Moss, 2015). Nutrients can also be added to certain plants such as golden rice, which was created by inserting a vitamin A gene into the rice to make it more nutritious (Courtesy).

An interesting example of genetically engineered foods is the banana vaccine. Scientists are able to alter the banana's genes by adding a virus protein that will strengthen a person's immune system to fight a disease (Moss, 2015). Genetic engineering of animals makes up a larger part of research in this field. Scientists have altered animals in several different ways for different reasons. Most of these animals have been altered for the benefit of humans.

For example, British scientists have altered hens to produce cancer-treating drugs in their eggs (Moore, 2014). Also, human genes have been added to cows so they can produce milk, similar to human breast milk (Moore, 2014).

These genetic changes help humans by giving them a simple source of nutrients and medicines. One of the most bizarre experiments is glow-in-the-dark animals. Scientists take genes from jellyfish that make fluorescent proteins and implant them into different organisms.

The purpose of inserting the fluorescent genes is to make sure that their method of transferring genes is working properly (Biello, 2013). Lastly, one of the more controversial topics in genetic engineering is the practice of cloning pigs and harvesting their organs. Pig organs are the closest in shape and size to human organs, and with this discovery scientists have genetically altered the organs to make them compatible with humans (Trivedi, 2002).

Once the pig's genes are modified the pig is then cloned in order to produce more organs with the modified genes. Currently, scientists are practicing transplants with primates since they are the most similar mammal to humans (Reardon, 2015). When ready, these organs will be used as a replacement for human organ transplants.

Overall, these are just some of the examples of the incredible things scientists have done with genetic engineering. And to think, genetic engineering is still relatively in its beginning and there is much more yet to be discovered. These scientists might be able to do the unimaginable in the future. Maybe one day they will have gone too far. Works Cited Biello, David. "Jellyfish Genes Make Glow-in-the-Dark Cats.

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