

Genetic engineering is morally and ethically wrong

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Some say that genetic engineering is morally and ethically wrong and that they pose a threat to human health, the environment, and the global economy. Genetic engineering has benefited the world for the better in more aspects of life than one such as food, animals, and plants, and will continue to as technology and knowledge increases. Since 1953, when scientists discovered the workings of the genetic system, scientists have learned how to change the composition of genes and how to change the basic traits of an organism.

By snipping genes out of cells and adding them to other cells " molecular biologists have the ability to create new properties that have never been seen before" (Jargon, 2002). This can be used to alter the properties of food. Scientists genetically alter food by using the genetic information from one organism, and then putting that specific trait into another organism that will take on that favored trait. Scientists can make food crops stay fresher, grow bigger, and have the crops create their own pesticides.

Although genetic engineering will revolutionize the way we grow food and care for our environment, people question genetic engineering. Genetic engineering is a targeted and powerful method of introducing desirable traits into animals. Scientists have used it to increase the production of milk in cows. Bovine GHZ can increase milk production in lactating cows. Using biotechnology, scientists bioengineered the gene that controls bovine GHZ production into E. Coli, grew the bacteria in fermentation chambers, and thus produced large quantities of bovine GHZ.

The bioengineering bovine GHZ, when injected into lactating cows, resulted in an increase of up to 20 percent in national milk production. Using bovine GHZ "farmers are able to stabilize milk production in their herds, avoiding fluctuations in production levels" (Biology, 2012). A similar thing is done with pigs and salmon. Scientists inject pigs with a growth hormone called porcine GHZ, this reduces back fat and increases muscle gain so that there is more meat to eat and sell. Salmon have been a food source on a large scale in the U.

S. Food markets since 2001. Salmon, being in high demand were genetically altered to fit the demands. These salmon have the ability of growing from egg to market size in eighteen months, as opposed to the conventional fish breeding. The conventional fish breeding takes up to thirty six months to bring a fish to market size. This is "beneficial" because it can help reduce overflowing of wild salmon. Plants and animals that have been genetically edified are low on the controversial scale.

The big hitter is genetically engineering used on humans. This is a heavily debated topic of discussion and science. Human genetic engineering is the alteration of an individual's genotype with the aim of choosing the phenotype of a newborn or changing the existing phenotype of a child or adult. There are limitless possibilities for this field of science and human application. The enhancements for humans range anywhere from curing diseases and increasing immunity to viruses to human cloning.

One thing that genetic engineering can help with is organ rampant. There's no question that organ transplants can save lives. The problem has always

been that there are not enough organs to save every patient who needs one. Once again, pigs hold a trait for matching well with humans, they have been genetically modified at birth so that their organs 'Will masquerade as human organs if transplanted' (Genetic engineering, 1997). Another field of genetic engine emerging has the potential to cure some diseases or sports injuries.

Scientists are injecting stem cells into muscle cells in hopes Of helping children with muscular dystrophy. Scientists on the forefront Of emetic manipulation predict that in as little as five to 15 years, athletes may be using genetic engineering to get the edge over their opponents; this could also potentially be used to heal sports injuries and enhance athletic performance. Stem cells are a wondrous thing; they are undifferentiated cells that go on to develop into any of the more than two hundred types of cell the adult human body holds.

Stem cells may be used to replace or repair damaged cells, and have the potential to drastically change the treatment of conditions like cancer, Alchemist's and Parkinson disease and even railways. Science and technology have both advanced to the point to where people can " personalize" babies. This process is called reprocessing. Reprocessing allows parents who can afford it to be able to pick out the genetic characteristics of their own children. This in tern may be able to eliminate diseased genes that are passed from parent to child, fix diseases before the child is born.

By being able to solve birth defects before that child is born, it would decrease the number of abortions. Being blonde hair and blue eyed loses its racially elitist undertones because traits would be easily available on the

genetic supermarket. It could make " hair color, skin color, and eye color become a subjective choice" (Seek, 2007). Genetic engineering could ultimately encourage racial harmony and diversity. Genetics may limit children's autonomy to shape their own destinies. People's destinies are already limited by their natural genetic makeup, a makeup that they are born with and cannot change.

A short person, for example, would be unlikely to join the basketball team because of a height issue that makes it difficult to compete with other tall teammates. An ugly person would be unable to achieve the dream of becoming a famous actress, due to the fact that the lead roles are given to the beautiful. A student with an IQ of seventy five will be unlikely to get into Harvard no matter how hard that individual tries, " our destinies are limited by the genes we are born with" (Seek, 2007). Genetic engineering could help level the playing field.

It would give people greater innate capacity to be able to fulfill their dreams and pursue their own happiness. It would give each person the capability of becoming whatever they want to, and let the eventual success be determined by effort, willpower, and perseverance. One final plus side of genetic engineering is human cloning. Human cloning is a huge deal; it is a major breakthrough in science. Some experts say that it might be possible to slow down or reverse the ageing process from what has been learned from cloning.

Human cloning technology could be used to reverse heart attacks. Scientists believe that they may be able to treat heart attack victims by cloning their

healthy heart cells and injecting them into the areas of the heart that have been damaged. Human cloning also allows for more and better organ transplants along with there kinds of transplants. Genetic engineering, or genetic modification, is the ability to change or remove certain traits or genes from one thing to another giving it qualities and attributes that in nature it wouldn't normally have.

Genetic engineering can be used for very good reasons, or very bad reasons. Some say that it is ethically and morally wrong to change what nature and billions of years of evolution have made and that it poses a threat to human health, the environment, and the global economy. Others say that it will drastically change the fields of science and technology for the better. That it will help change the world and rid it of many of the problems that it has. Genetic engineering is used to change food and crops so that it will stay fresh longer, taste better, and grow bigger.