## **Team 2 Executive Summary - Designer Babies**

What was once only imagined to be of science fiction is now becoming science fact. Humanity is approaching an era of transhumanism; where we look to continue the evolution of our species beyond current limitations physically and intellectually with the advancement of science and technology. One such example, and just over the horizon, is the idea of deliberate genetic modification of humans. The result: Designer Babies.

With significant advancements in genetic engineering over the past few decades, parents will soon have the choice to decide which genes, traits, abilities their children would inherit. Blue eyes? Check. Increased intelligence? Check. The possibilities are endless. Modified humans could alter the genome of our entire species, because their engineered traits will be passed onto their children and could spread over generations slowly modifying the whole gene pool of humanity. This has the possibility to completely eradicate diseases that have plagued humanity such as cancer and HIV, potentially saving millions of lives and millions in tax money on healthcare.

On the opposite end of the spectrum, it is possible that human genetic engineering may in fact do more harm than good. The risk of a widening income inequality is disturbing. The wealthy will be able to afford this technology at first, which would provide a head start to an already handicapped advantage for those families who look to maintain their position atop the social hierarchy. These children will inherit advantageous traits to lead a successful life while those families who cannot afford will suffer through poverty and lack of opportunity. This may also affect sport and competition, as there is massive potential for "gene doping". Most concerning, the loss of genetic diversity may bring rise to a future disease with the potential to be the "Achilles Heel" of humanity.

We are at a crossroads with this technology from an ethical standpoint. First, the safety of these procedures has not been fully established. The potential for harm is great as the problems and side effects may be passed on to future generations. Modified humans may

become the new standard, consequently creating social tensions between modified and non-modified humans. The term "slippery slope" is apparent here. Will regulations need to be implemented for the safe use of this technology? Are there any violations of human rights associated? Should we continue to research and develop this revolutionary technology? This report will look to explore the positive and negative possibilities of this emerging technology, and attempt to answer the difficult questions, with the hopes of leaving the reader with an unbiased understanding of human genetic engineering that allows them to make their own informed decision on this controversial subject. `