

Proposals for genetic research

Proposal 1

You are a scientist working for NASA. You propose using genetic modification to develop the ability to survive in extremely cold conditions. As well as being useful for astronauts, this would benefit deep-sea divers, mountaineers and anyone living in cold countries. NASA employees looking to start families of their own have already volunteered to use the technology to affect their own off-spring, claiming that the ability to withstand the cold would benefit their children whether they chose to be astronauts or not.

Proposal 2

You have calculated that the average man pays out tens of thousands of pounds on razors and shaving equipment in his life, spending over half a year of his life shaving. You propose research to find the DNA sequence responsible for the growth of facial hair and investigate how this could be removed. If successful, the techniques might be extended to include unwanted body hair for women.

Proposal 3

Diseases kill many millions of people across the globe. You have worked for charities in developing countries for several years, and are proposing research into making people genetically resilient to common diseases. You predict that, once people are able to resist diseases, future generations will be protected, and most diseases should die out. Although there will be a great initial cost, the expense of vaccinating each new generation would be spared.

Proposal 4

Most parents try to encourage their children to take up some form of sport, and some start very early in training their little ones. You propose to enable parents to plan ahead, choosing the sports that they want their children to have a greater propensity for before they're even born. You work for the Department of Health and are hoping that genetically modifying people to make them better at sports means that more people will be involved in sports, making people healthier, saving hospitals money (and securing Britain more medals at the Olympics).

Proposal 5

You work for a secret government agency that is looking at warfare in the future. As weapons technology (and terrorism) develops, you predict that we will no longer be able to have wars using long-range weapons - terrorists hide amongst the innocent and need to be targeted individually. The future of the army lies in the strength and wit of its soldiers, and you believe that genetic modification would enable us to create soldiers that are stronger, faster, more intelligent and able to survive in difficult terrain such as the desert.

Proposal 6

You have heard that scientists have produced glow-in-the-dark mice and rabbits using a fluorescent gene from the jellyfish *Aequorea victoria*. You propose that the technology could be used to give people glow-in-the-dark hair. This purely cosmetic effect may seem trivial, but a cancer research company in the US called Prolume has started marketing glow-in-the-dark food and drinks as a lucrative spin-off. There may well be demand for glow-in-the-dark hair, eyes or who knows what else?

Proposal 7

In a scene from the film *Gattaca* there is a pianist with six fingers on one hand. You propose a program of genetic modification that would make this fiction a reality. It is commonly known that many famous musicians have had musical offspring. A couple with musical ability would be able to pass this gift on to their children through their genes with the added bonus of a couple of extra digits.