Genetic Engineering Debate Questions / Scenarios

Situation #1

You and your spouse are expecting a child. You had a karyotype performed because you and your spouse are both carries of a gene that would cause a child to have to be connected to life support for it's entire life (unless medical advances occur). However, gene therapy is available in which the "defective gene" can be replaced with a "normal gene". What do you and your spouse do?

Questions To Consider :

- Will this eventually lead to a race of "perfect babies"?
- Is there a "reason" the child will be born this way?
- Will a person do anything to save their children?
- Is it wrong to abort this child? / Is it wrong to "fix" this child?

Situation #2

A certain species is endangered and close to becoming extinct. At this point in time, cloning of this type of species is possible. Do you clone the species to prevent extinction or do you let nature "run it's course"?

Questions To Consider :

- Will disease eventually wipe out the species in the future?
- Will increased numbers of this species throw off current food webs?
- Who will pay for this technology?
- If we can save a species, then do we have the responsibility to do so?

Situation #3

In a foreign country (which has had notoriously poor sports teams) , experimentation is being conducted (and allowed) to genetically engineer an athlete that is superior in soccer. This athlete would have supreme endurance, muscle tone, quickness, and game-situation intelligence. Currently, the World Cup does not ban genetically engineered individuals from participating in the tournament. You are the chairperson of the soccer committee of another country (which has no ban against genetically engineering people) that has won 6 of the last 10 World Cups. Do you continue playing normally, do you boycott the tournament, or do you genetically engineer even "better" athletes?

Questions To Consider :

- What happens to countries that ban genetic engineering?
- When will "being better" end? / Will it end, if it begins?
- Should the World Cup make rules against uses of engineered athletes?
- If countries can make super athletes, can they make super soldiers?

Situation #4 (True Scenario)

Smallpox is caused by a Varicella virus and causes a person to have skin lesions and eventually die. Previous to 1980, this disease was a major epidemic. However, vaccination and immunization programs have eradicated (eliminated) the disease from the general population. Currently, the only vials of this virus are kept at the CDC (Centers For Disease Control) in Atlanta, Georgia and Moscow, Russia. The entire genome of this virus has been mapped and vaccinations can be created using a close relative that causes monkeypox. Should these vials of smallpox be incinerated (burnt) or preserved?

Questions To Consider :

- By destroying the virus, are we playing "God"?
- By keeping these vials preserved, is it a potential terrorist disaster?
- Who should decide the fate of the smallpox virus?
- Can resistant strains arise that may require having the vials preserved?

Situation #5

The FDA (Federal Food & Drug Administration) currently allows genetically engineered foods to be sold despite not having labels indicating alterations to the genes of the foods. Proponents of the FDA believe it would be nearly impossible to figure out which foods are genetically engineered since many are engineered sometime during production. Protestors of the FDA believe it is the consumers right to know which foods are engineered, regardless of the cost. What should be done?

Questions To Consider :

- Is it feasible to label engineered foods?
- Do people have the right to know if their food is engineered?
- Could engineered foods have unforeseen, long-term, negative effects?
- If genetically engineered foods can solve malnutrition, why not do it?

Situation #6

You have someone that is very old and very close to you die of an untreatable disease. At this point in time, cloning of people and restoring memory is allowed. Cloning this person means that the person will look and act exactly the same way they did before they died. They will only have a memory loss of when they died. Do you bring this person back to life (assuming you have the money to do so)?

Questions To Consider :

- Is cloning of humans right or wrong? / What about mice?
- How many times do you clone a person?
- What happens to "defective" clones?
- Would you want to be brought back to life? / Live forever?