

**HC70A/PLSS 059 - Genetic Engineering in Medicine, Agriculture, &
Law**

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Genetic Engineering Opinion Survey

Genetic Engineering in Medicine

1. If in your family history there is a lethal incurable genetic disease (e.g., Huntington's Disease), would you want to be tested to see if you carried the lethal gene?
 - a. Yes
 - b. No
2. If you carried the dominant lethal gene and became pregnant using *in vitro* fertilization, would have embryos tested for the gene before implantation?
 - a. Yes
 - b. No
3. If you carried the dominant lethal gene, would you use *in vitro* fertilization (IVF) and PGD to screen for "normal" embryos before implantation?
 - a. Yes
 - b. No
4. If you determined that your embryo carried the dominant lethal gene, would you use gene editing to alter its DNA so that the gene becomes normal?
 - a. Yes
 - b. No
5. Should editing human embryos be permitted in order to cure lethal diseases even though the engineered genes will be passed on to the next generation?
 - a. Yes
 - b. No
6. If you could choose traits for your baby, would you choose to:
 - a. Rule out a genetic disease
 - b. Ensure greater intelligence
 - c. Influence height, weight, or hair/eye color
 - d. Select gender (male or female)
 - e. All of the above
7. Should parents that carry a gene for a genetic disease be required to test their children to determine whether they are carriers or have the disease?
 - a. Yes
 - b. No
8. Should a child that is born with a genetic disease be allowed to sue their parents for failing to have a genetic test for the disease that is causing the child so much "misery;" if a gene test exists? That is, sue for wrongful life liability?
 - a. Yes
 - b. No
9. If parents choose to give birth to a child with a genetic disease, should the parents, or society, pay for the health care for their child?
 - a. Parents
 - b. Society
10. If you could undergo gene therapy and change any of your genetic traits (e.g., eye color, hair color, skin color, presence/absence of body hair, etc.) without any adverse effects, would you do it?
 - a. Yes

Birthday (YEAR/MM/DD): _____/____/_____

- b. No
- 11. Should the government regulate gene therapy – that is, altering genes to cure or prevent genetic diseases – by passing specific legislation at the state and/or federal levels?
 - a. Yes
 - b. No
- 12. Should cloning of human embryos be permitted in order to obtain patient-specific stem cells to cure diseases such as diabetes, Parkinson's, and muscular dystrophy?
 - a. Yes
 - b. No
 - c.
- 13. Should the state and/or federal government ban the cloning of human beings?
 - a. Yes
 - b. No
- 14. Would you allow yourself to be vaccinated with a genetically engineered vaccine in order to make you immune to common flu viruses?
 - a. Yes
 - b. No
- 15. Would you allow yourself to be injected with a genetically engineered drug in order to treat a life-threatening illness?
 - a. Yes
 - b. No
- 16. Should Permanent (Heritable) Changes in the Human Genome Be Allowed?
 - a. Yes
 - b. No

Genetic Engineering in the Law

- 1. Should the police be allowed to collect DNA from suspected criminals without a search warrant?
 - a. Yes
 - b. No
- 2. Should law enforcement agencies be allowed to use ancestry DNA databases to solve crimes without the permission of individuals who have submitted their DNA sequences to the database?
 - a. Yes
 - b. No
- 3. Should every individual who is arrested for a crime be required to have his/her DNA fingerprinted and deposited in a National Criminal DNA database (CODIS)?
 - a. Yes
 - b. No
- 4. Should insurance companies have access to your genetic records, or DNA fingerprints, without your permission?
 - a. Yes
 - b. No
- 5. Should employers be able to obtain access to employees' genetic records and/or DNA fingerprints without permission?
 - a. Yes
 - b. No
- 6. Should employers be allowed to require their employees to undergo DNA testing?
 - a. Yes
 - b. No
- 7. Should the state and/or federal government regulate funding for stem cell research?

Birthday (YEAR/MM/DD): _____/_____/_____

- a. Yes
- b. No
8. Should the government regulate the engineering of animals and plants for use in agriculture and/or medicine?
 - a. Yes
 - b. No
9. Should genetically engineered mosquitos be released into the environment if they could eliminate diseases such as malaria, yellow fever, and zika?
 - a. Yes
 - b. No
10. Should patents be allowed on human gene sequences?
 - a. Yes
 - b. No
11. Should patents be allowed on genetically engineered organisms (e.g., oil-eating bacteria)?
 - a. Yes
 - b. No
12. Should research involving genetic engineering techniques be carried out to combat lethal pathogens that could be used as bioweapons?
 - a. Yes
 - b. No
13. Should research publications that could be used to engineer bioweapons be censored by the government?
 - a. Yes
 - b. No
14. Should resurrecting extinct animals (e.g., woolly mammoth) by a combination of synthetic genomes and cell cloning be permitted?
 - a. Yes
 - b. No
15. Should organisms with synthetic genomes that have traits that they weren't "born" with (e.g., fuel producing bacteria) be regulated?
 - a. Yes
 - b. No?

Genetic Engineering in Agriculture (GMOs)

1. Would you eat food obtained from genetically modified plants or animals?
 - a. Yes
 - b. No
2. Can engineering crop plants with modern DNA tools help mitigate the effects of climate change on food production in the future?
 - a. Yes
 - b. No
3. Should genetically modified foods be labeled?
 - a. Yes
 - b. No
4. Is organically grown food more nutritious than food grown using conventional agriculture?
 - a. Yes
 - b. No
5. Have you eaten any foods that were produced by modern genetic engineering?
 - a. Yes
 - b. No
6. How many fruits and vegetables in the grocery store are GMOs?
 - a. One

Birthday (YEAR/MM/DD): _____/____/____

- b. Three
 - c. Ten
 - d. All
7. All domesticated plants and animals are GMOs.
- a. Yes
 - b. No
8. Genetically engineered foods are harmful to your health.
- a. Yes
 - b. No
9. Genetically engineered salmon has been approved by the FDA for human consumption.
- a. Yes
 - b. No
10. Should crops be engineered that are resistant to insects and require no pesticides?
- a. Yes
 - b. No
11. The “so-called” GMO controversy is science based?
- a. Yes
 - b. No