

Genetic engineering review concepts. State and describe...

- Definition of genetic engineering
- Difference between recombinant DNA, gene knockouts, and gene knock-ins.
- How genetic engineering was used to manufacture human insulin.
- Definition and importance of sticky ends.
- How sticky ends make genetic engineering possible.
- Purpose and value of DNA ligase.
- How genetic engineering was used to make Bt Corn; value and purpose of Bt corn.
- How Bt Corn works.
- Safety and controversy of Bt Corn.
- How genetic engineering was used to make Golden Rice; purpose and value of Golden Rice.
- How Golden Rice was made and how this differs from Bt Corn.
- How transgenic animals are made.
- Definition of DNA Microinjection.
- Definition of a pronucleus and relationship to DNA Microinjection.
- Definition and purpose of a knockout mouse; value to medicine.
- Definition of a chimera and how this relates to knockout mice.
- How stem cells are involved in the creation of knockout mice.
- Definition and purpose of a knock-in mouse; value to medicine.