Genetic Engineering

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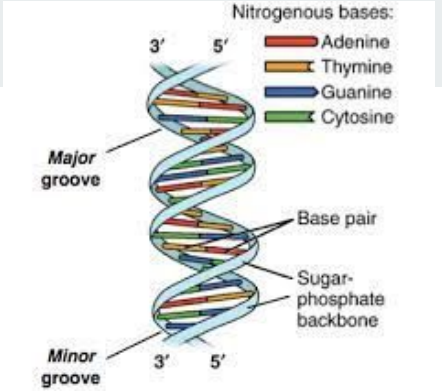
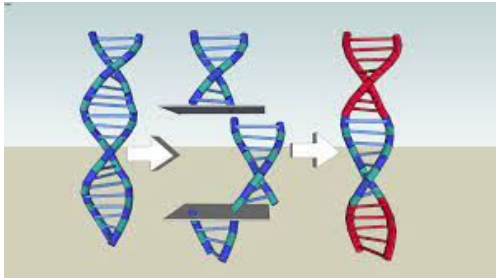
Overview

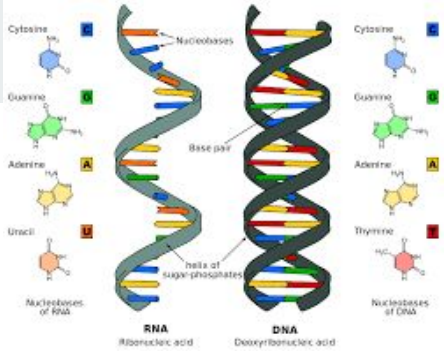
- History, History, History,
- Graph
- Implementation, Implementation
- Pros
- Cons
- Summary
- References

History

- Discoveries of the double helix, rDNA, and CRISPR have helped genetic engineering
- 1958 DNA is made in a test tube
- 1971 Gene Splicing Experiment





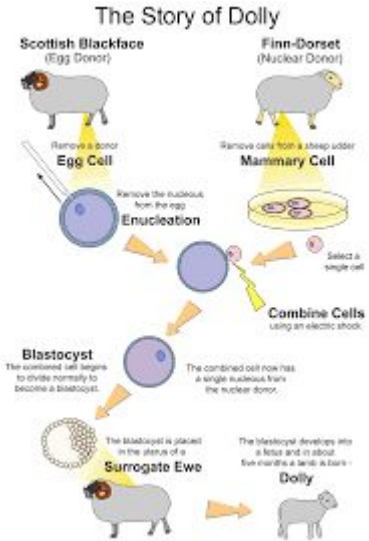


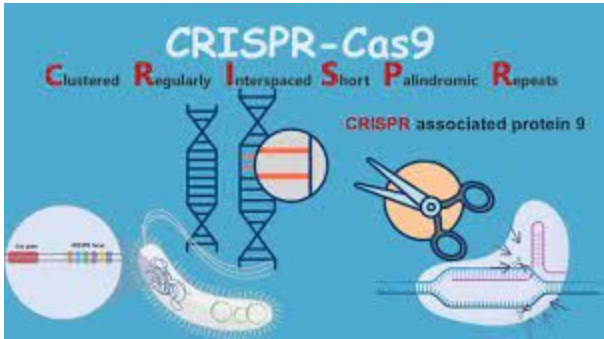
History

- 1972 Recombinant DNA (rDNA) is created
- 1981 First transgenic (altered genome) animal created
- 1982 First genetically Engineered Human Drug - Synthetic Insulin

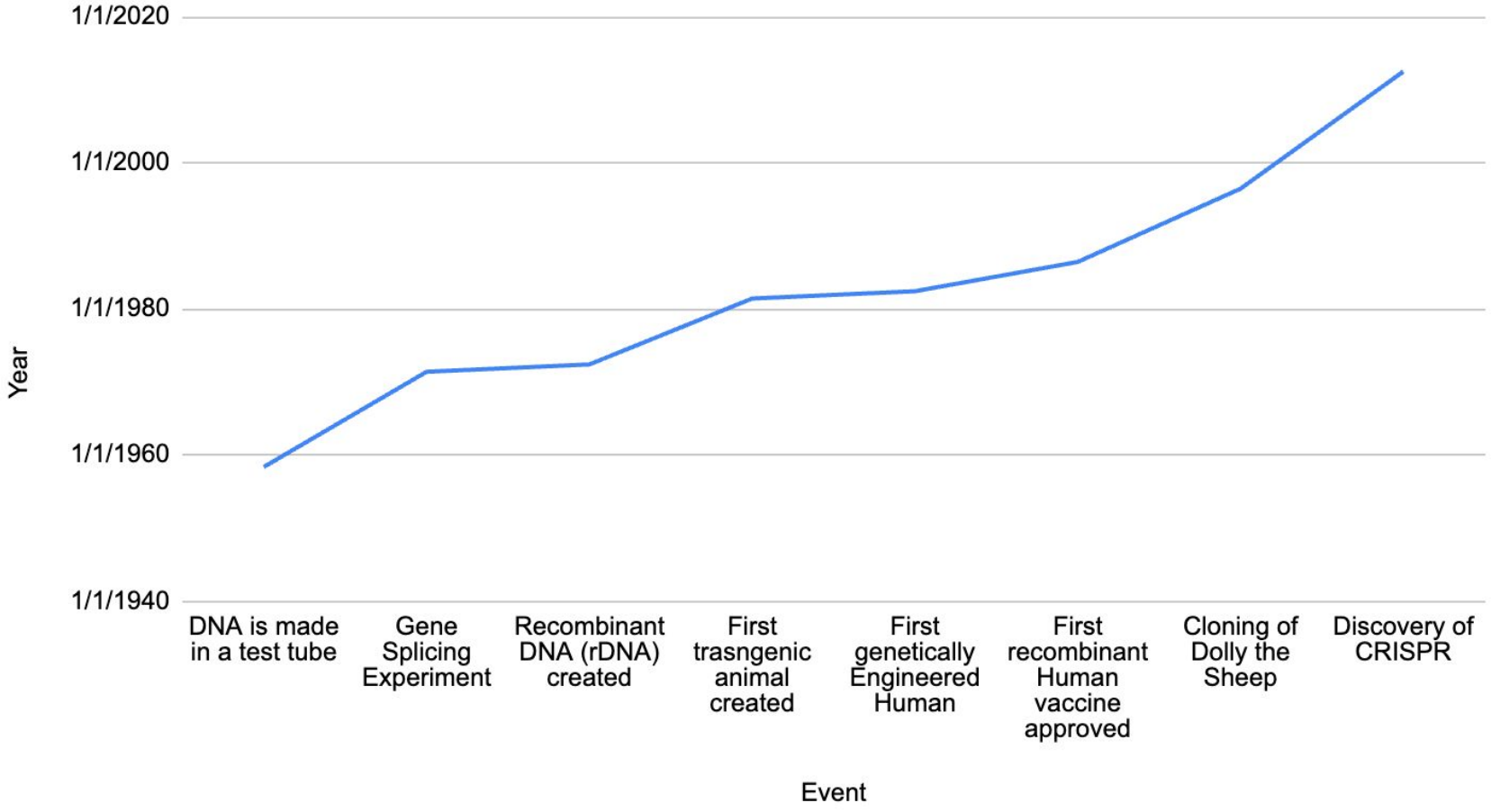
History

- 1986 First Recombinant Human Vaccine approved
- 1996 Cloning of Dolly the Sheep
- 2012 Discovery of CRISPR Genome Engineering Tool





Year vs. Event

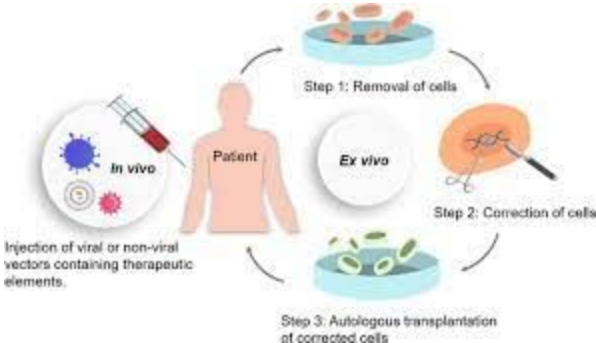


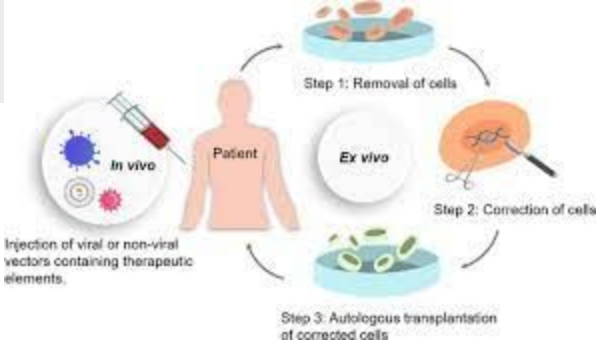
Implementation - Who

- Medicine
- Agriculture
- Industry

Implementation - What

- Bacteria creation
- Crops
- Genetic diseases



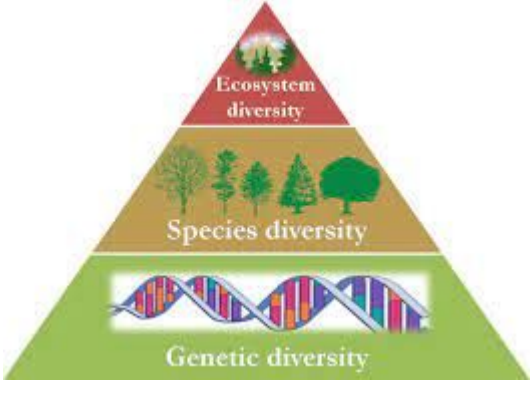


Pros

- Defeating diseases
- Produce new foods
- Pest and Disease Resistance for Crops

Cons

- Ethics?
- Can Lead to Genetic Defects
- Limits genetic diversity



Summary (My take)

I am for the advancement of genetic engineering. It can drastically change our world if we use it smartly. As long as we don't break ethics and try to use it for good, it can help us develop more quickly. The use of genetic engineering will greatly improve our health because there will be more medicines for us to use as well as more food to eat. Overall our quality of life will be improved because the use of genetic engineering in medicine can help us fight many diseases that before we couldn't fight. Genetic engineering also allows us to understand biology at a much greater level allowing us to make new advancements over time that can revolutionize Earth.

References

History of Genetic Engineering and the Rise of Genome Editing Tools by Synthego.org

Various Pros and Cons of Genetic Engineering For Cloning and Transformation by conserve-energy-future.com

Genetic Engineering by britannica.com

Genetic Engineering by byjus.com