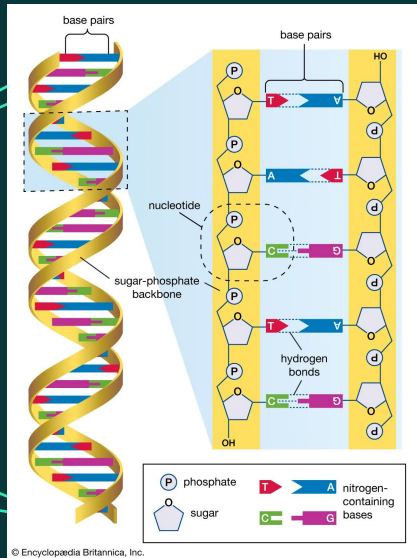




The Human Genome Project

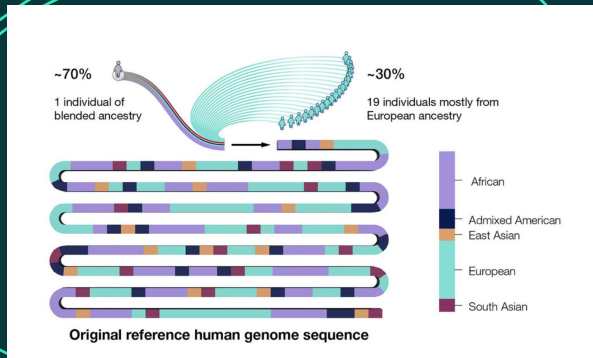


What is the Human Genome Project?

- One of the greatest scientific feats in history
- October 1990 - April 2003
- Generated the first sequence of the human genome
- Used DNA sequencing, which determines the order of the bases or As, Cs, Gs, Ts that make up segments of DNA

- “Led by an international group of researchers looking to comprehensively study all of the DNA of a select set of organisms” (“The Human Genome Project”)
- Generating the first sequence of the human genome gave humanity access to the human blueprint, which accelerated our understanding of human biology and improved medical knowledge
- Many of the project’s achievements exceeded the expectations scientists held when the project first began

Whose genome was used?



- 20 individuals' DNA was used
- However, the majority of the sequence came from one person of blended ancestry (70%)
- The other 30% of the sequence came from 19 other individuals with primarily European ancestry

Residual Accomplishments

- The “Bermuda Principles” which made every part of the genome sequence publicly available
- Risks vs. benefits of genomic research
- The value of production-oriented, discovery-driven scientific inquiry
- Successful example of ‘big science’
- Today, massive scientific initiatives have become more commonplace thanks the HGP.

4

- This agreement is often cited as a key factor in advancing awareness and transparency around data sharing in biomedical research.
- Scientists pondered the risks and benefits of using gene data in research and medicine, including the misuse of this information from insurance companies and employers.
- Instead of investigating a single hypothesis or a set of specific questions, widening the scope of research.
- The project was composed of experts in engineering, biology, computer science, and other areas.

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