

Checkpoint #2

GENOME

Book Questions

1. Why, in a book of 23 chapters, is the last chapter Chapter 22?
2. What is a better analogy for the human genome...book or blueprint?
3. What are two skills of life?
4. What is/was LUCA?
5. Why do humans have 23 pairs of chromosomes and all other primates have 24?
6. What was Muller's great discovery?
7. What disease results if a certain gene is completely missing on chromosome 4? What disease results if that same gene has some mutations?
8. What does it mean to be a "dominant human genetic disease."
9. Define "pleiotropy" and "pluralism" in regards to genetics.
10. What conclusion is drawn from all the studies of intelligence in twins and adoptees and families? Include specific %.
11. What is the function of the protein that is coded by the IDF2R gene?
12. What two genetic conditions affect linguistic ability?
13. Why is the SRY gene so peculiar?
14. What is one of the most common genes in the whole human genome, and what does it do?
15. Which type of mutation is found in the gene for O blood type?
16. Explain, in physiological detail, how cortisol suppresses the immune system.
17. Why do some people eat carbohydrates on winter evenings?
18. What group of genes dictate what each cell in a developing embryo will become?
19. Why is Iceland the perfect genetic laboratory?
20. A cell needs which enzyme, made by which gene, to live forever?
21. Which disease is passed through the father and is a result of some of chromosome 15 missing, and which disease is passed through the mother but has the same origin?
22. Which molecule is responsible for learning (strengthening and weakening synapses)?

Take Aways

1. Describe three "take-aways" from the book. What did you learn while reading it?
2. What topics in class did the book help you understand better?
3. What questions do you still have about the topic and why?