## Genome Assignment

- 1. Chromosome 3
- 2. 1900 genes,
- 3. approx. 200 million base pairs
- 4. MLH
- 5. Repair mistakes in gene replication in the colon
- 6. Homo sapiens CFTR promoter region (LOC111674463) on chromosome
- 7. Protein
- 8. transmembrane conductance regulator
- 9. Cystic fibrosis
- 10. Chromosome 7
- 11. Pan paniscus
- 12. pygmy chimpanzee
- 13. No, chimpanzees are closely related to homo sapiens
- 14. Sapajus apella. tufted capuchin. Primate
- 15.19
- 16. Mutations, insertions, or deletions
- 17. Mus musculus TAR DNA binding protein (Tardbp), transcript variant 1, mRNA.
- 18. Homo sapiens ubiquilin 2 (UBQLN2), mRNA.
- 19. FUS RNA binding protein
- 20. Homo sapiens superoxide dismutase-1
- 21. Amyotrophic Lateral Sclerosis
- 22. Open access, publicly available nucleotide sequences and the proteins they transcribe
- 23. Copy DNA or complementary DNA
  - a. Reverse transcription from a single RNA strand
- 24. Homo sapiens partial HBB gene for hemoglobin beta chain, exon 1
- 25. A portion of DNA molecule that has no codons when translated
- 26. Start codon
- 27. 61 because it is in the middle of the sequence
- 28. Yes
- 29. 361 19- G for sequence 1 and R for sequence 2 781 3- deletion in sequence 1
- 30. Binds acidic and basic fibroblast growth hormones for bone development and maintenance
- 31. Craniosynostosis and multiple types of skeletal dysplasia.
- 32. Yes, I learned how many genes are on chromosome 3. I did not know chromosomes had so many genes on them.