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Individuals that hare heterozygous for the gene that causes sickle-cell anemia are resistant to malaria. This is interesting to me because it seems strange that something so detrimental to one’s health as sickle-cell anemia could actually benefit a population. These individuals must endure a quarter of their children having full sickle-cell anemia and another quarter with no resistance to malaria. It’s almost sad that “Disease is an agent of natural selection”.

Potentially significant mutations occur in every other person born. This interests me because I really never knew significant mutations occurred that often, and it is surprising that mutation in general (including the non-significant mutations) occur much more often that that because only about 1.5% of our DNA is protein-coding.

The probability of an allele’s frequency changing in a relatively short period of time increases with relative to a decreasing population size. When a genetic change happens it is much more likely to affect a population when 1% has a new trait rather than 0.00001% have a new trait. This interests me because I am studying calculus, which is all about the rate of a changing variable compared to another changing variable. I am starting to see more real world applications of what I’ve been learning in math.