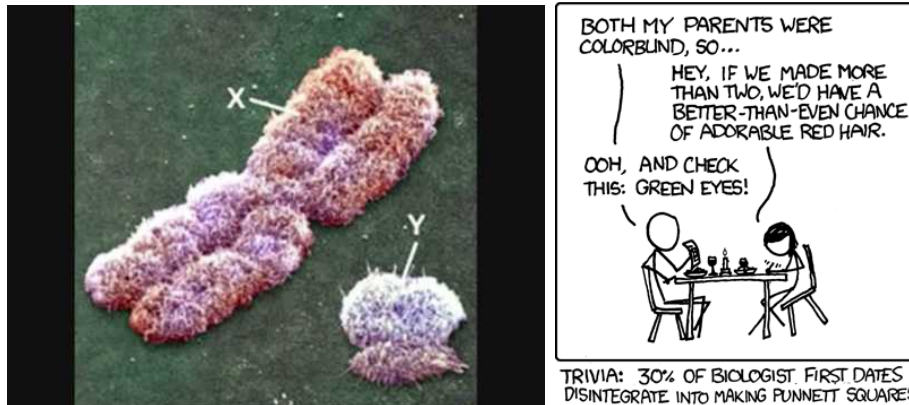


Math/Computer Science Colloquium Series

Population Genetics: Hardy-Weinberg Equilibrium

Jessie Lenarz



Mendelian genetics and the use of Punnett squares allow us to predict what the genotype of the offspring of two individuals would be. The Hardy-Weinberg law of genetic equilibrium provides a mathematical model for studying evolutionary changes in allelic frequency within an entire population, rather than the offspring of a particular pair of parents. When we look at entire populations, we may ask how can O be the most common of the blood types if it is a recessive trait? Or if Huntington's disease is a dominant trait, shouldn't three-fourths of the population have Huntington's while one-fourth have the normal phenotype? Shouldn't recessive traits be gradually "swamped out" so they disappear from the population? We will use the Hardy-Weinberg Model of population genetics to examine these questions.

Tuesday, November 24

2:45 p.m.

Ivers 218

Homemade Cookies!