

Figure from: Hunter, Lawrence. "Molecular biology for computer scientists." *Artificial intelligence and molecular biology* (1993): 1-46.

$$\{\bigcirc \bigcirc \bigcirc = A, \bigcirc \bigcirc \bigcirc = C, \bigcirc \bigcirc \bigcirc = G, \bigcirc \bigcirc = T\}$$

Real genomes very unlike "random" genomes

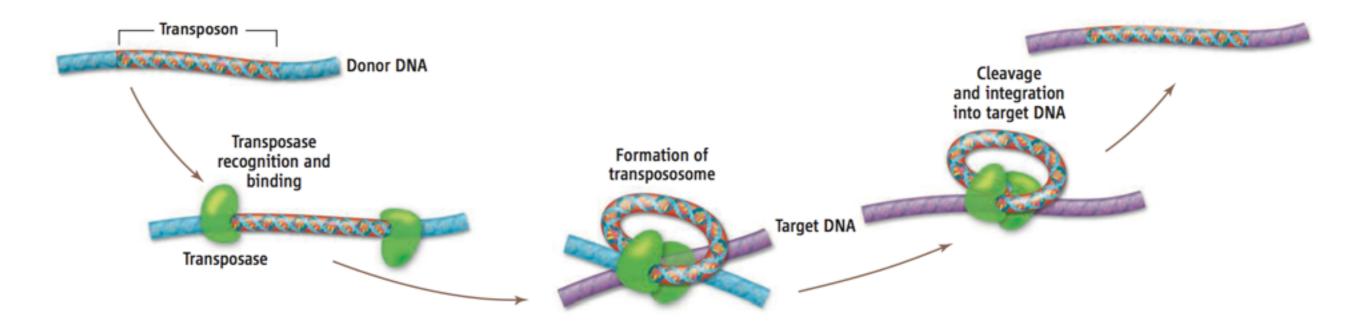
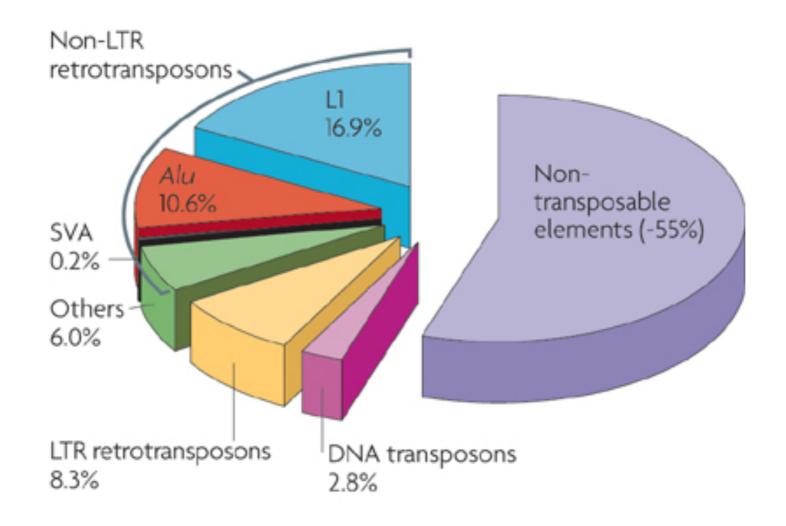
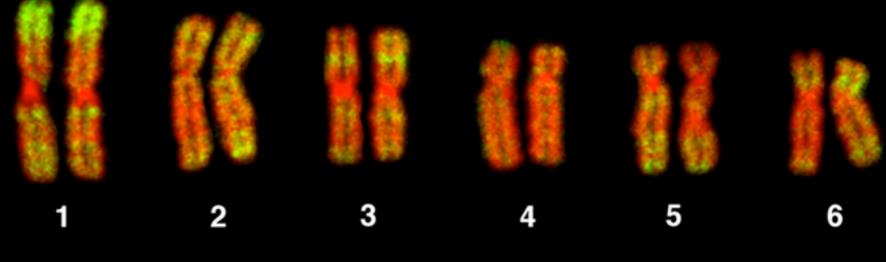


Image from: Fedoroff, Nina. "Transposable elements, epigenetics, and genome evolution." *Science* 338.6108 (2012): 758-767.

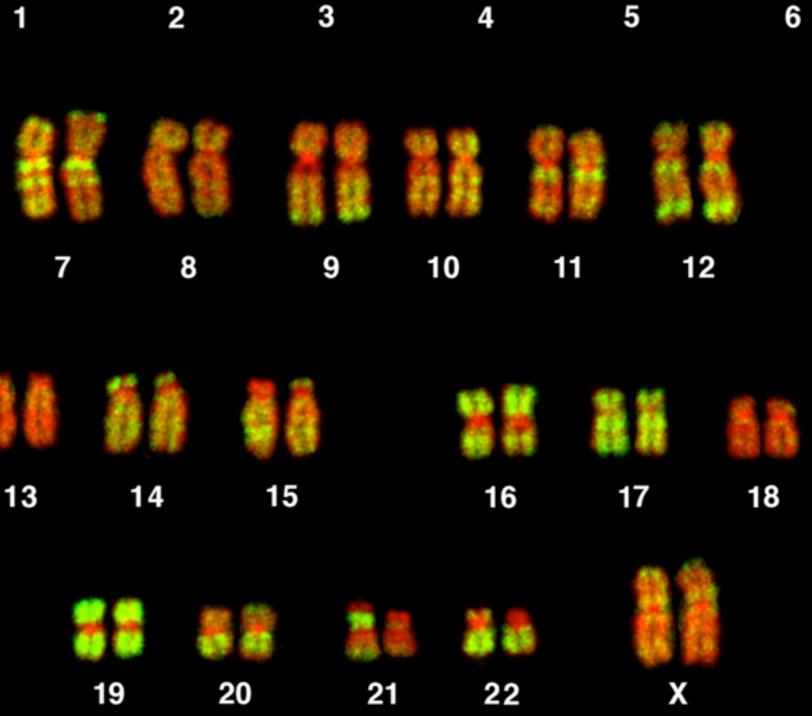


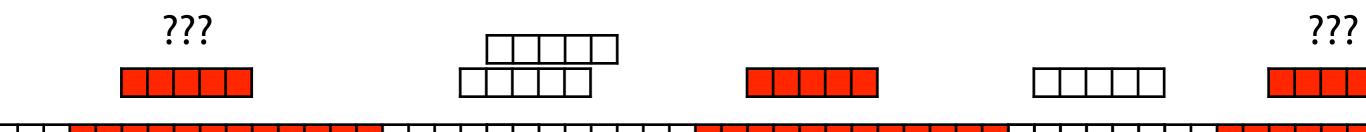
Cordaux R, Batzer MA. The impact of retrotransposons on human genome evolution. Nat Rev Genet. 2009 Oct;10(10):691-703



Alu repeats cover 11% of the human genome

Image: Alus glowing green in human chromosomes





Genome: non-repetitive, repetitive

