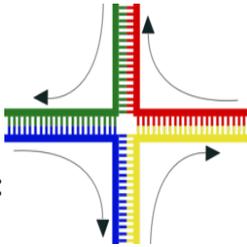


DNA Genetic Recombination

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What is DNA Recombination?



Definition:

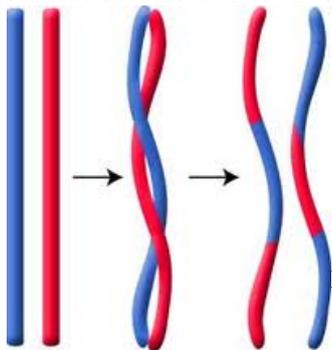
Genetic Recombination is the process of forming new [allelic combination](#) in [offspring](#) by exchanges between [genetic materials](#).

Or

we can simply say it is a process by which a molecule of [nucleic acid](#) is broken and then joined to a different one

Crossing Over & Recombination

The DNA double helix won't interact with the rest of its segments. Human beings have chromosomes in a specific area in their cells and these areas are known as chromosome territories. It is present in the nucleus of the cell. As they are



physically different from the rest of the parts of cell, it is a unique specialty of DNA and helps

the DNA function as a stable repository for information. Some times during [recombination](#) the chromosomes interact with each other and the process you know is the [chromosomal crossover](#). Two helices of DNA break and a particular section of a helix will rejoin with the other helix. This is known as crossover of DNA.

Because of the recombination, chromosomes exchange their genetic information with the other helix and new combinations would be arises. This new combination of genes increases the chance of [natural selection](#). This will be very important for the evolutionary process of the biology. This recombination would create new proteins too. This genetic recombination has its main role in the DNA repairing. This has the influence in the cell response to the double helix breaks.

After the double helix break, the enzyme recombinase leads to the join of the two helices. While joining with the other helix, it should match to the complementary strand of the other helix. Then only the recombination would occur.

Want to know more about genetic recombination process?[Click here](#) to schedule live online session with e Tutor!

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Reference Links:

- <http://www.sci.sdsu.edu/~smaloy/MicrobialGenetics/topics/genetic-analysis/recombination/rec-genetic.html>
- http://en.wikipedia.org/wiki/Genetic_recombination
- http://en.wikipedia.org/wiki/DNA#Genetic_recombination
- http://www.layyous.com/Videoclips/crossing_over.htm
- <http://www.dnatube.com/video/350/Crossing-Over>

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