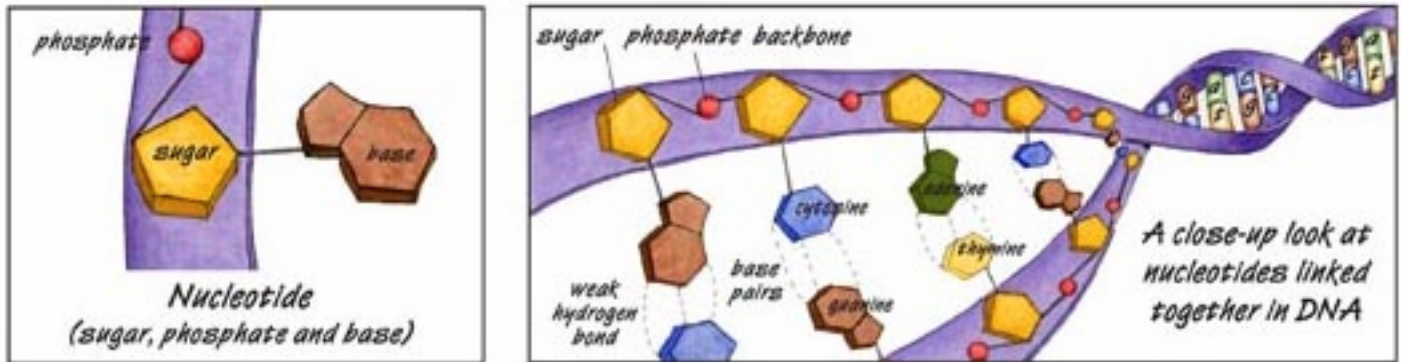


Watson and Cricks Great Discovery - The Structure of DNA

Genetics, Cloning, and the Human Genome Project

The Structure of DNA



Each nitrogenous base pair is held together by a weak hydrogen bond and stacked flat on top of each other like steps. To each base pair, a two sugar-one phosphate complex attached. This formed the so-called nucleic acid.

In 1953 James Watson and Francis Crick built the first correct structural model of DNA. They used scale models of atoms to work out their theories about how the structure was set up. When they discovered how the base pairs Adenine fit together with Thymine and Guanine fit together with Cytosine, they knew they had found a solution to DNA's structural puzzle.

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The DNA model built by Watson and Crick and the accompanying paper published in Nature, showed how DNA's base pair structure is suited for the copying of genetic material. In 1962 they, along with Maurice Wilkins, received the Nobel Prize for Physiology for their work.

Content Collaboration

Collaborative consultation on website genetics and genomics from Dr. Stephen M. Carleton, Assistant Professor, Department of Anatomy and Cell Biology, SUNY Health Science Center at Brooklyn.

CITING RESEARCH REFERENCES

Amsel, Sheri. "Genetics, Cloning, and the Human Genome Project." Watson and Cricks Great Discovery - The Structure of DNA. Exploring Nature Educational Resource. © 2005 - 2009. November 20, 2009. <<http://exploringnature.org/db/detail.php?dbID=106&detID=2447>>