

# A BRIEF HISTORY: DISCOVERY OF DNA



DNA is the instruction book for making an organism. Here's a brief history of this molecule.

**1869**

A Swiss-born biochemist Fredrich Miescher discovered DNA while studying white blood cells. He isolated the molecule that would later be known as DNA.

**1881**

German biochemist Albrecht Kossel determined DNA was nucleic acid and he identified the 5 building blocks of DNA and RNA - adenine, thymine, cytosine, guanine and uracil. He gave DNA its name.

**1882**

Walther Flemming studied chromosomes and discovered mitosis. He determined chromosomes doubled.

**1902**

German scientist Theodor Boveri and the American Walter Sutton independently determined that chromosomes contain the key to heredity.

**1909**

Term "gene" first used.

**1944**

The Avery-MacCleod-McCarty experiment determined that DNA was the material that made up genes and chromosomes.

**1949**

Erwin Chargraff determined two rules that hinted at the base pair makeup of DNA. The numbers of C=G and T=A

**1951**

Roslind Franklin's work in X-ray crystallography was key to Watson and Crick's discovery.

**1953**

Watson and Crick determined that DNA was a double helix.

**1958**

Matthew Meselson and Franklin Stahl determined the semiconservative replication of DNA.

**1961**

Nirenberg and Matthaei discover triplet codons.

**1965**

E.coli alanine t-RNA was the first nucleic acid molecule to be sequenced.

**1966**

Marshall Nirenberg discovered the genetic codes describing 20 amino acids.

**1972**

David Comings talks about junk DNA, applying the term to all non-coding DNA

**1977**

Frederick Sanger and Walter Gilbert developed a procedure for determining the order of nitrogenous bases in DNA.

**1983**

Barbara McClintock discovered that some (transposons) genes are able to change position on chromosomes.

**2018**

Intercalated motif is a type of DNA also found in the nucleus. I-motifs likely play a role in gene regulation in the cell.