

A Brief History of Genetics

Charles Darwin — 1859

Charles Darwin was an English naturalist who wrote his book **On the Origin of Species**. In the book he proposed the scientific theory of evolution by natural selection which became the foundation of modern evolutionary studies.

Gregor Mendel — 1866

Gregor Mendel was first and foremost a man of god. He was an Augustinian Monk but he was also a very good scientist. By experimenting with pea plant breeding, Mendel developed **The Three Principles of Inheritance** that described the transmission of genetic traits, before anyone knew genes existed. Mendel's insight greatly expanded the understanding of genetic inheritance, and led to the development of new experimental methods.

Friedrich Miescher — 1869

Swiss chemist Friedrich Miescher first identified the DNA molecule inside of cells. Although at the time no one yet knew its role in genetics.

Thomas Hunt Morgan — 1910

Working with fruit flies, Thomas Hunt Morgan was the first person to definitively link the inheritance of a specific trait with a particular chromosome. He was awarded a Noble prize in 1933 for his development of **The Chromosome Theory of Inheritance**.

Frederick Griffith — 1920

Following the world-wide Spanish Flu pandemic of 1918–1919, British microbiologist discovered that DNA was the material responsible for transmitting genetic information.

James Watson and Francis Crick — 1953

Solved the three-dimensional structure of the DNA molecule. They were awarded the Nobel Prize in 1959.

Fred Sanger — 1975

Developed the chain termination (dideoxy) method for sequencing DNA.

Kary Mullis — 1985

Published a paper describing the polymerase chain reaction (PCR), the most sensitive assay for DNA yet devised.

Human Genome Project Begins — 1988 – 2003

The human genome project was an international scientific project with goal of mapping all the genes of the human genome. It was declared complete on April 14, 2003.