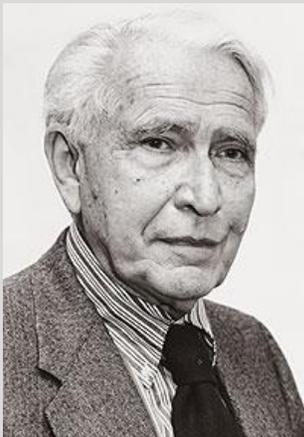


**Barbara McClintock**

"I researched on the genetics of corn, and found out that there is a correlation between the chromosome of corn and their phenotypes (outward appearance). In my research, I focused on the "knob" found at the end of chromosome 9, and with the help of Harriet Creighton, we successfully transferred the 'knob' between two chromosomes and saw the phenotype switch. This was the first demonstration of "crossing over" during meiosis.

**Oswald Avery**

"In my research, we looked at strains of the *Pneumococcus* bacteria that caused pneumonia. *Pneumococcus* bacteria is interesting because it can grow on the host, and also on solid or liquid cultures (nutrient soups). I noticed that one strain was "rough" while another was "smooth" (infectious one) due to a sugar coated capsule. What I found out was that if I were to use the infectious strain and infected a mouse, the mouse would be infected as well.

**Edwin Chargaff**

"I believe that there was more to DNA than just repetitive tetranucleotide blocks. I isolated DNA from different organisms and measured the levels of each of the four nitrogenous bases. I found that there were similar amounts of adenine and thymine, and also cytosine and guanine together. Interesting. So DNA wasn't just repetitive tetranucleotide blocks!"



Rosalind Franklin

“I am a x-ray crystallographer hired by the King’s College in London. X-ray crystallography can provide information on the structure and the shape of a molecule. When X-ray is directed at a molecule, the shape and structure of the molecule will direct the rays into different forms. The output of the rays will review the shape and structure. I provided the x-ray data and images of DNA.



Hershey and Chase

“Alfred Hershey, and Martha Chase worked on bacterial phages, which are viruses that attack bacteria. Due to virus simplistic structure, their genetic material is kept in a capsule at its head. In order for a bacteriophage (virus) to reproduce, it needs bacteria host. We noticed that the bacteriophages did indeed transfer their DNA to the bacteria and DNA is the sole genetic material.”



Watson and Crick

“Francis Crick, and James Watson developed the 3D structure of DNA. The structure is a double helix that is held together by hydrogen bonds between nitrogenous bases (A, C, G, U) in the nucleotide. Furthermore, the DNA has a sugar (ribose 5 Carbon) backbone and a phosphate group.



Gregor Mendel

“I worked with pea plants because they are easy to grow, and they have many traits that distinguish strains of pea plants from each other. The traits could also be tracked from one generation to another.”



Friedrich Miescher

“I was interested in the chemistry of cells. I worked with white blood cells by collecting pus from bandages at a local hospital. I used salt solution to wash the pus off and added a weak basic solution to cause the cells to lyse (break apart) to collect the nuclei. I managed to collect nuclei from all the pus collected, and noticed they had a high phosphorus count. Weird.”



Thomas Morgan

“I started a “Fly” lab at Columbia University to study genetic variations. I studied how chromosomes played a large part of fruit fly genetics. I noticed that when I bred a “white eye” male with a wildtype “red eye” female, I got all red-eyed offspring. WHAT?”

DNA Timeline:

Mendel 1866

Miescher 1869

Morgan 1911

McClintock 1931

Avery 1944

Chargaff 1950

Franklin 1952

Hersey and Chase 1952

Watson and Crick 1953