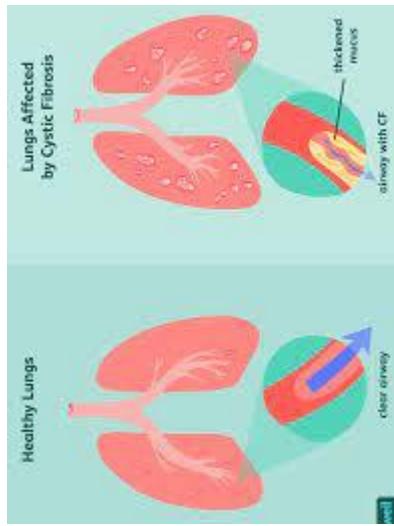


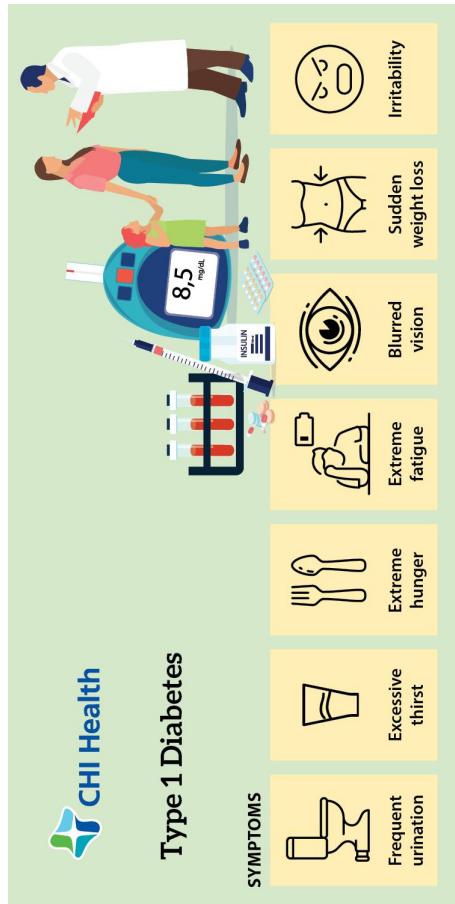
Cystic fibrosis

Cystic fibrosis is an inherited disease characterized by the buildup of thick, sticky mucus that can damage many of the body's organs. The disorder most common signs and symptoms include progressive damage



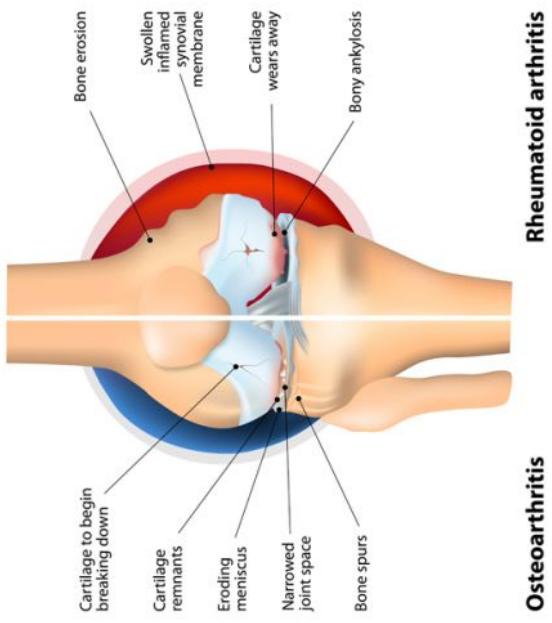
Diabetes type 1

Diabetes is a chronic condition associated with abnormally high levels of sugar (glucose) in the blood. Insulin produced by the pancreas lowers blood glucose



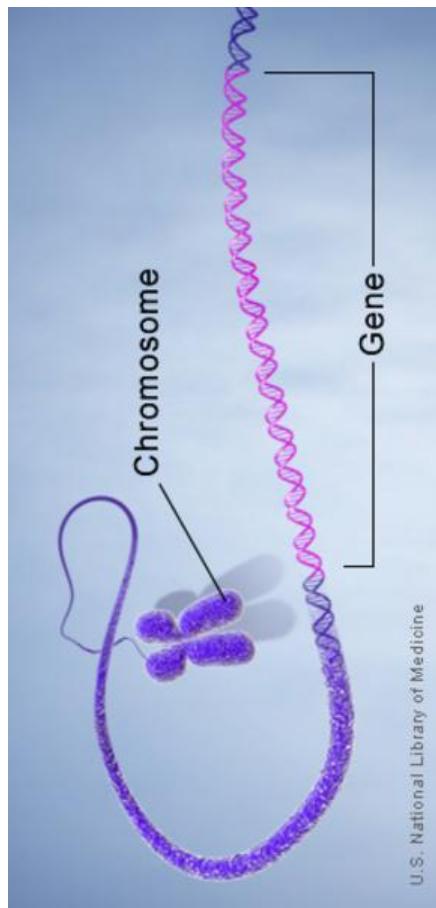
Arthritis

Arthritis is inflammation of one or more joints. Symptoms of arthritis include pain, stiffness, and limited function of joints. Arthritis sufferers include men and women, children and adults.



What are genes

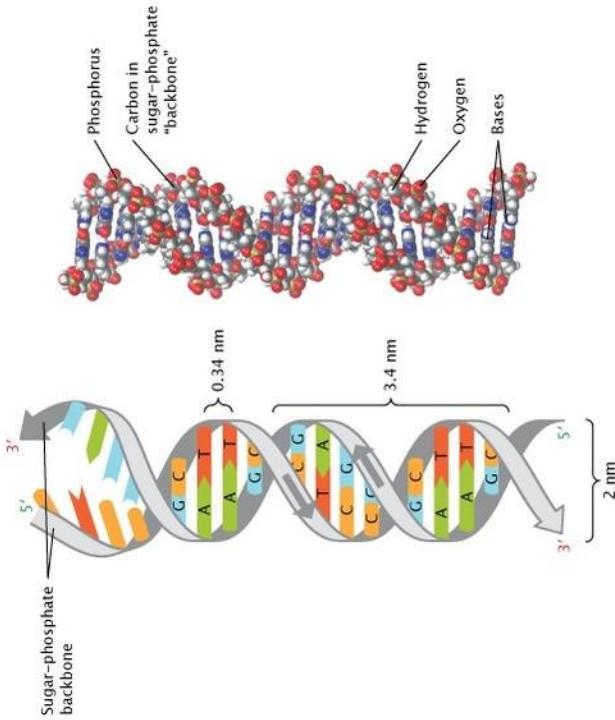
A gene is the basic physical and functional unit of heredity. Genes are made up of DNA. Some genes act as instructions to make molecules called proteins.



U.S. National Library of Medicine

the double helix of DNA and when it was discovered and by whom

using a technique called X-ray crystallography, it revealed the helical shape of the DNA molecule. The 3-dimensional double helix structure of DNA was found by James Watson and Francis Crick.



Describe a future application (use) of DNA techniques

we may use DNA from crime scenes to create descriptions of potential suspects



Friedrich Miescher

Friedrich Miescher was a swiss researcher who discovered dna in 1869 While he studying white blood cells



Maurice Wilkins

Maurice wilkins also helped captured the images of the molecule that made this possible



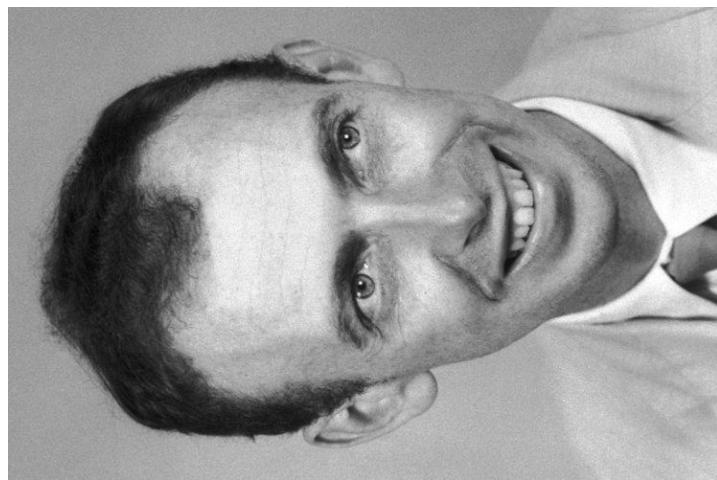
Rosalind Franklin

Rosalind franklin captured the images of the molecule that made this possible



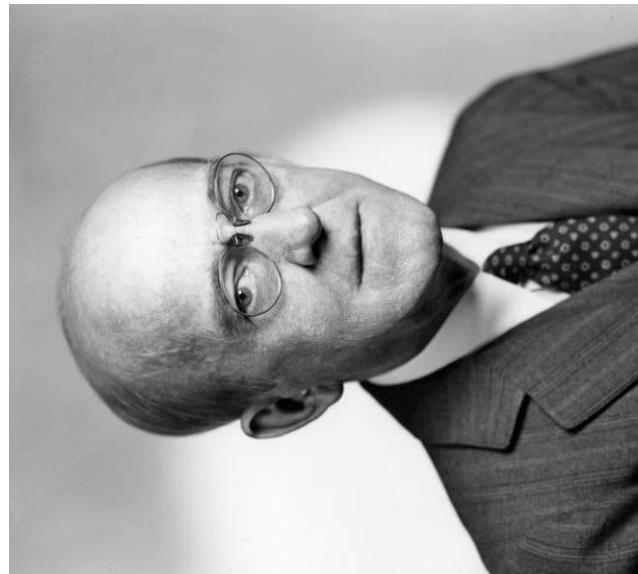
James Watson

James Watson was scientist who famously the first to work out the structure of DNA



Oswald Avery

Oswald was experimenting with the bacteria that cause pneumonia. He found that only DNA could change R type bacteria into S type.



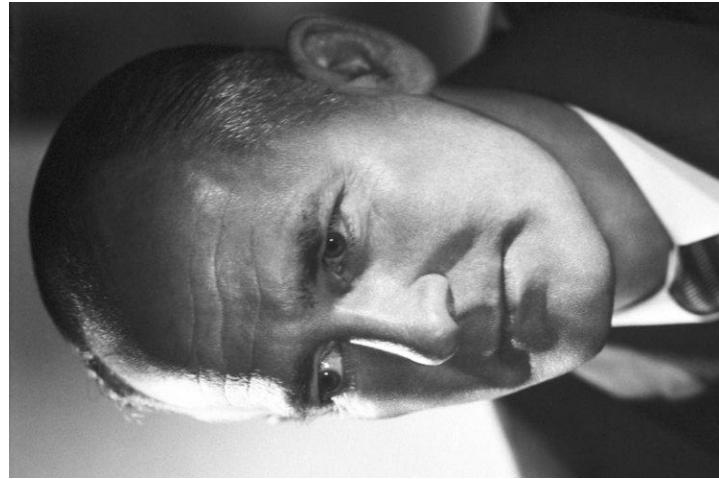
Gregor Mendel

Gregor Mendel In the 19th century, it was commonly believed that an organism's traits were passed onto offspring in a blend of characteristics that went from parent to offspring



George Beadle

George Beadle was a scientist who experimented with red bread mold *Neurospora crassa* that showed that genes



Edward Tatum

Edward tatum also was a scientist who experimented with red bread mold *Neurospora crassa* that showed that genes.



Murray barr

Burray barr is best known for his discovery, made in 1949 with Ewart Bertram there discover was with densely staining nuclear bodies present in the somatic cells of female humans and of female mammals.



Ewart Bertram

Ewart Bertram made a discovery in conjunction with Murray Barr in 1949. His discovery with Barr was of densely staining nuclear bodies present in the somatic cells of female humans and of female mammals.



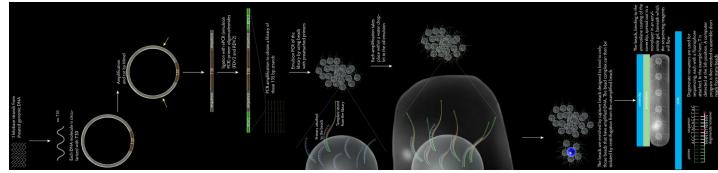
the Illumina MiSeq and HiSeq

The Illumina MiSeq and HiSeq are machines that are the most common for large-scale DNA sequencing machines



Polony Sequencing

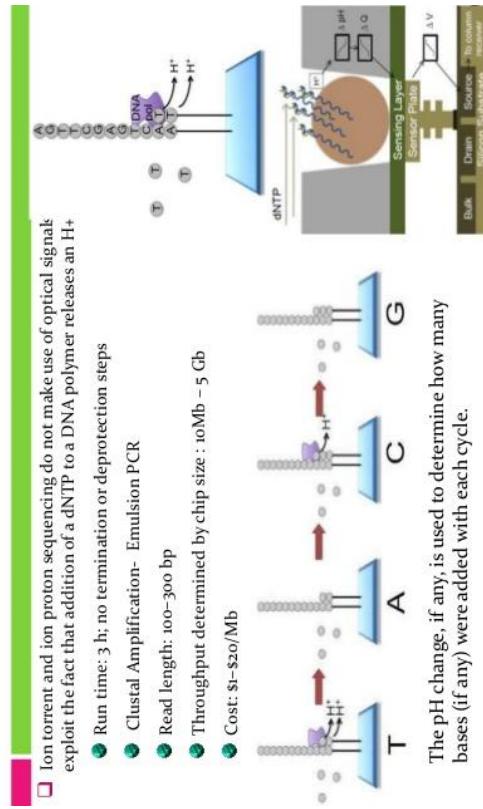
Polony Sequencing is a cheap highly accurate multiplex sequencing technique that can be used to read millions of immobilized DNA sequences



Ion Torrent—Sequencing by Synthesis.

is a method of DNA sequencing based on the detection of hydrogen ions that release when the polymerization of DNA happens

ION TORRENT SEQUENCING



The pH change, if any, is used to determine how many bases (if any) were added with each cycle.