

HISTORY OF THE PAST

IMPORTANT PEOPLE OF THE PAST

- Robert HOOKE – a polymath
 - made one of the first microscopes
- Anton Van LEEUWENHOEK – made the first useful microscope in 19th century
 - made lens held in metal clip
 - ↳ molten glass
- Lady Mary WORTLEY MONTAGUE – introduced the small pox vaccination
- Francisco REDI – Italian physician
 - disproved the theory of spontaneous generation
- John NEEDHAM – Irish priest
 - tested abiogenesis; experimented boiled broth and stated that air can bring microorganisms to life
- Lazaro SPALLANZANI – Italian priest
 - disproved the theory of spontaneous generation
- Louis PASTEUR – a chemist
 - performed a crucial experiment that proved that new life didn't just spontaneously arise from substances
- Ilya METCHNIKOFF – renowned bacteriologist
 - first to realize that animals have a defense system against infections (immune system)
- Paul EHRLICH – synthesized the first successful (but very toxic) drug against a disease – syphilis, it was an arsenic derivative called salvarsan
- Hans Christian GRAM – invented Gram stain to identify bacteria
- Gerhard DOMAGK – developed the first useful drug against variety of bacterial infection, the first sulfa drug – prontosil
- Sir Alexander FLEMING – discovered the first relatively safe and effective antibiotics – isolated from microorganisms
 - discovered penicillin
- Selman WAKSMAN – discovered streptomycin and other antibiotics
- Robert KOCH – Father of Medical Microbiology
 - initiated the use of agar as a stable material for the formation of gel that separated the pure colonies of bacteria and fungi could be grown
- John TYNDALL – demonstrated that dust carries microorganisms
 - provided evidence for the existence of exceptionally heat resistant forms of bacteria

PROPONENTS OF CELL THEORY

- Robert HOOKE – used a microscope to examine a thin slice of cork
 - ↳ oak tree
 - Hooke is responsible for naming cells
 - Hooke called them cells because they looked like the small rooms that monks lived in called cells
- Anton Van LEEEWENHOEK – first to view organism
 - used a simple, handheld microscope to view pond water and scrapings from his teeth
 - animalcules → microorganisms
- Matthias SCHLEIDEN – a German botanist who concluded that all plants were made of cells
- Theodore SCHWANN – a German zoologist who concluded that all animals were made of cells
- Rudolph VIRCHOW – a German medical doctor who observed cells dividing (under a microscope)
 - reasoned that all cells come from other pre-existing cells by cell division