

Robert Koch (1843-1910)

Born in Germany, Koch was a doctor who became interested in Pasteur's work and began to study bacteria himself. He was just as ambitious as Pasteur and just as brilliant at detailed, painstaking work in his laboratory and at working with a team of assistants.

They saw each other as rivals, especially after the war between France and Germany in 1870-1871, which was won by Germany. Both men wanted to be successful to glorify their countries.

Robert Koch - his work from 1873 to 1880

- Koch investigated anthrax, a disease affecting animals and people, and discovered the specific bacterium that causes anthrax. This was the first time the specific germ that caused an individual disease had been identified and it was the final proof of Pasteur's germ theory.
- Koch then developed a method of proving which particular bacterium was causing a disease, which could then be used by other scientists.
- Koch improved methods of studying bacteria.
- He developed ways of staining bacteria so they could be photographed using a new high-quality photographic lens and studied in detail.
- He also discovered how to grow bacteria on potatoes, which made them easier to study than in a liquid.

Robert Koch - his work from 1881 to 1882

- Koch was angry when he heard of Pasteur's development of the anthrax vaccine. He thought Pasteur had stolen some of his research on anthrax.
- He decided to get ahead by becoming the first man to discover the specific germ that causes a human disease.
- He investigated tuberculosis and found a way of staining the bacterium causing the disease that made it stand out from other bacteria and human tissue - it was so small that it had been missed by other scientists.
- This was the major breakthrough he had been searching for. His research team was able to use his methods to discover the specific bacterium that causes cholera.

Other scientists joined in the hunt, finding the bacteria for the diseases in this list.

1882 Typhoid 1883 Cholera

1884 Tetanus 1886 Pneumonia

1887 Meningitis 1894 Plague 1898 Dysentery