

Discovery of microscopic life

[Science](#), [Biology](#)



Who made the discovery of microscopic life?

Antony van Leeuwenhoek is appraised as the father of microbiology. In 1671, he just built a very simple microscope started observed different substances. He started to explore and observed things around him with microscope due to his curiosity. With his powers of observation, it made him to discover of fundamental importance. In 1676, Antony van Leeuwenhoek discovered bacteria and became the first person who see bacteria. He also found out the singled-celled organisms which was protozoa and named it as “animalcules”. He discovered spermatozoa in 1677 and concluding that eggs are fertilized when entered the sperm and noticed that yeasts consist of minute globular particles in 1680. Antony van Leeuwenhoek gave the first accurate description of red blood cell after he extended Marcello Malpighi’s demonstration in 1660 of the blood capillaries (Encyclopedia Britannica 2018). Also, he discovered the small multi-cellular aquatic animals known as rotifers, hydra and the single-celled which is called volvox. Besides, Antony van Leeuwenhoek discovered a microscopic aquatic creatures which was infusoria that lived in ponds (Francis 2018).

What were his academic and research background?

A British scientist who named as Robert Hooke started to study living things under microscope lens in 1665. Microscope of the 17th century was not as powerful as microscope now but Robert Hooke and Antony van Leeuwenhoek were still able to see and identify the cells. Even though Antony van Leeuwenhoek did not invented microscope but he gave rise greatly to microscope history. He built about 500 microscopes and at least 172 lenses.

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These microscope will still be think of power magnifying glasses today even though simple in construction. His microscopes could magnify objects up to 200 times. Some historians guessed that Antony van Leeuwenhoek discovered a simple method of dark-ground illumination which is the process of observing living matters by using scattered light.

How was it discovered? What were the experimental steps or research studies involved?

Antony van Leeuwenhoek was reportedly managed to design and produce over 500 microscopes and over 172 variations of lenses (Ketchum 2018). He experimented to calculate the microorganism in water and observed other objects which included hair, skin and blood. He also studied the physical structure of ivory and discovered parasite in flea by using more powerful microscope. In 1674, he observed some lake water and saw some organisms that were manifestly protozoa (Grigg 2018). Antony van Leeuwenhoek also recorded that bacteria seen living inside the human body by conducting the experiment of scraping plaque inside his teeth and putting it under the microscope. He could see many organisms which he called that animalcules. In 1680, Antony van Leeuwenhoek observed a drop of beer with his lenses. He observed many small particles in the fluid and caused the beer to turgid and found out that yeast cells consist globular particles.

Drawing of yeast cells by Antony van Leeuwenhoek.

In 1677, Antony van Leeuwenhoek described the human spermatozoon. He mentioned that he observed a large number of “small animal” which he called it as animalcules.

Spermatozoa by Antony van Leeuwenhoek

In 1674, He also examine the shape of red blood cells which already been discovered six years earlier by Jan Swammerdam. He could gave the accurately description of red blood cell than ever before and was the first person to determine the size correctly with his superior lens.