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**CONTRIBUTION OF ANTONIE VAN LEEUWENHOEK**

**TO MICROBIOLOGY**

This report is about the Dutch scientist Antonie Van Leeuwenhoek (1632 - 1723), born in Delft, the Netherlands, who is widely known as the father of microbiology due to his invention of unique microscopes which allowed to research his respective field in a different way [1].

Antonie Van Leeuwenhoek was a businessman career wise, and a self-taught scientist, widely focusing in the field of microbiology. For the majority of his life he worked as a chamberlain in the city hall of Delft, and did his research in his free time, in which he sent letters with his observations to the royal society, in England. At the time, science and technology were directly linked to trade and profit, and Britain was an emerging maritime power, copying methods of the Dutch. This allowed Van Leeuwenhoek to actually progress with the royal society, as they had demand for his work [3].

What drove Antonie Van Leeuwenhoek to research in science besides passion, was the fact that he had learned to grind lenses, and used this skill to advance his passion, and research into cells [1].

In this report we will focus on his discoveries, and how these discoveries are presented in today's society.

Van Leeuwenhoek was the first one to discover microorganisms with his own developed microscope. After he developed his microscope, he was able to look deeper into the little things, and observed very little organisms which he called animalcules, which means little animals in Latin language. An example of one of the animalcules, or microorganisms he observed, is the protozoa, which are large, unicellular, Eukaryotic organisms [2].

After discovering animalcules, or microorganisms, Van Leeuwenhoek decided to dig in deeper, and look at the structure, or the details of these animalcules. As he did this, he noticed the general cell structure, in which he saw a bag like structure, which he started researching particularly. This structure was the Vacuole, which is a bag, responsible for storage in the cell. By doing this, Van Leeuwenhoek not only discovered the cell, but also discovered one of its organelles, the vacuole. Besides his discoveries, it wasn’t until a friend of Antonie Van Leeuwenhoek put him in touch with the royal society in England that Van Leeuwenhoek became famous, and started making actual scientific progress, and getting status [3].

In conclusion, Van Leeuwenhoek has made great progress in the field of medicine, from the human body, where he described sperm structure, muscle fibers, as well the optic lens, his discovery of the animalcule was his most appreciated discovery, which got him the title of father of Microbiology. It is important to conclude this report, with the fundamental idea that these discoveries are all derived from the development of his microscope [2].

It was due to the discoveries of Van Leeuwenhoek, that further generations of scientists could research, and discover more things.

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