

BIOGRAPHY

Friedrich Theodor Schwann was born in Neuss Germany in 1810. He completed his primary studies at the Jesuit College of Cologne and, in 1829 he began his studies in medicine at Bonn University where he was a pupil of J. P. Müller. He graduated with an M.D. degree in medicine from the University of Berlin in 1834. His thesis was a careful study of the necessity of oxygen during the embryonic development of the chicken.

After that, he continued doing research rather than practicing medicine.

In 1839 he moved to Belgium where he began to teach Anatomy at the University until 1880 when he retired.

He died on 11 January 1882, in Cologne, Germany, when he was 71 years old.

DISCOVERIES

Muscle tissue

In 1835 he studied about the [muscle contraction](#) and he described an experimental method to calculate the contraction force of the muscle.

Pepsin

In 1836, he discovered **Pepsin**, the main enzyme produced by [the](#) stomach. Its function is the digestion of proteins.

Yeast and fermentation

In 1836, with powerful microscopes he could observe yeast cells in detail and he recognized that they were tiny organisms with similar structures to plants. He demonstrated that fermentation required the presence of yeasts to start, and stopped when the yeasts stopped growing. Living yeast was necessary for the reaction that would produce more yeast.

The value of Schwann's work on fermentation was recognized by [Louis Pasteur](#), ten years later.

Friedrich Theodor Schwann



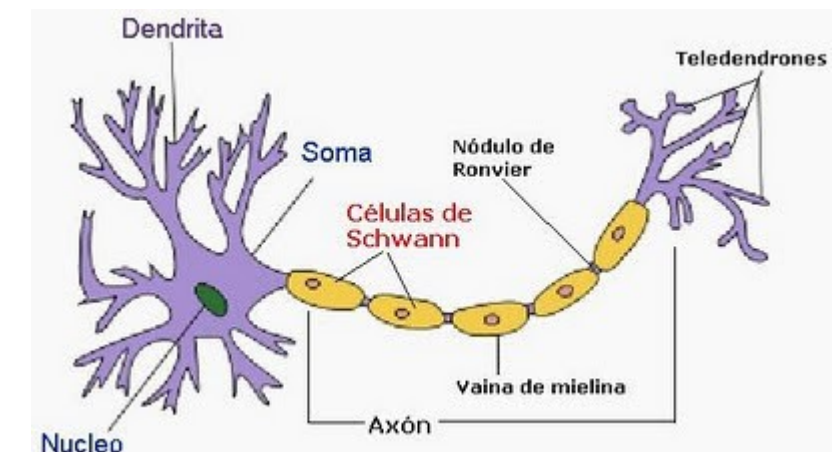
Cell theory

In 1839 he discovered in animals the two first statement of the cell theory that are:

1. All living organisms are composed of one or more cells.
2. The cell is the most basic unit of life.

Schwann Cell and other Specialized cells

He 1838, he discovered the cells that are in the neurons around their axons forming and insulating protection. This cells are now called [Schwann cells](#) in his honour.



Schwann also discovered that muscle tissue in the upper esophagus was striated so it works like a pipe moving food between the mouth and the stomach.

Metabolism

He established the term "metabolism", as the set of chemical processes by which energy changes occur in living things.

AWARDS

Schwann's work was recognized by the most important scientists in the international field. He was awarded the Copley Medal in 1845 and in 1879 was appointed a member of the Royal Society and the French Academy of Sciences.