Theodor Schwann (1810-1822) and Matthias Schleiden (1804-1881)

both of them have made their own discoveries and achievements but together they have made one very important discovery (1839): "The Theory of Cells". This theory badges the cell as a basically particle of plants and animals. Schwann and Schleiden were able to recognize that some organism are unicellular, while others are multicellular. Additionally, they found out that the cell nucleus and the membrane belong to the properties of the cell, occupied by comparisons of different plant and animal tissues.

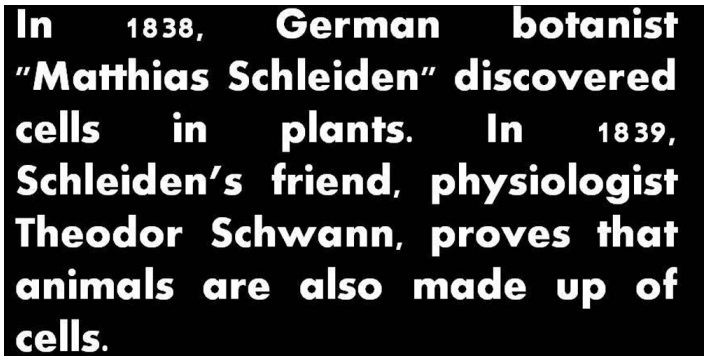
Matthias Jakob Schleiden (on the picture, the left man) was born on the 5th of April in 1804 in Hamburg as a son of a respected doctor. He studied law in Hiedelberg and achieved his pHD 1826 and became a lawer in his hometown Hamburg. His chosen work as a lawer has been very unsatisfied for Schleiden so that he decided to commit suicide in 1832. Schleiden could be rescued and survived this try. After this he was convinced to change his life at all and he began to study medicine in Goettingen. Due to his profesor Bartling, Schleiden won a big interest in botanic.

This decision induced him to move to Berlin where his botanic oncle Johann Horjel lives who encouraged and promoted him. Contemporary, the famous scientists Alexander von Humboldt and the scottish botanist Robert Brown in Berlin. Schleiden worked in the labaratory together with Johannes Peter Mueller who has been the person who introduced Schleiden to Schwann. In 1839 Schleiden received his doctor in Jena which allows him to give full scope to his passion.

As a result, he wrote many scientific writings of far- reaching topics that became famous. He caught the enthusiasm of each different audience and his writings were pubished in many high respected magazines. As a consequence, Schleiden became really quickly a respected and notable writer and lecturer with the most publications of people at his age. Finally, Schleiden leaves Jena 1862 and stays for s short time in Dresden until he gets an invitation for the position as a professor in anthropology in Dorpat, Estonia. Although, Schleiden did not stay there for a long time, the russian government payed an appartment for him whereas Schleiden moved as a private teacher from city to city. 1883 Schleiden published writings about the phytogenesis in Mueller's archive of anatomy, physiology and scientific medicine.

This article saved Schleiden a well- known name in the history of biology. Immediately this article was translated into French and English. What has been so revolutionary about this article? Schleiden published in it a demonstration of the structure of a plant cell and the importance of the nucleus.Schleiden was one of the first German biologists who accepted the theory of evolution by Darwin.

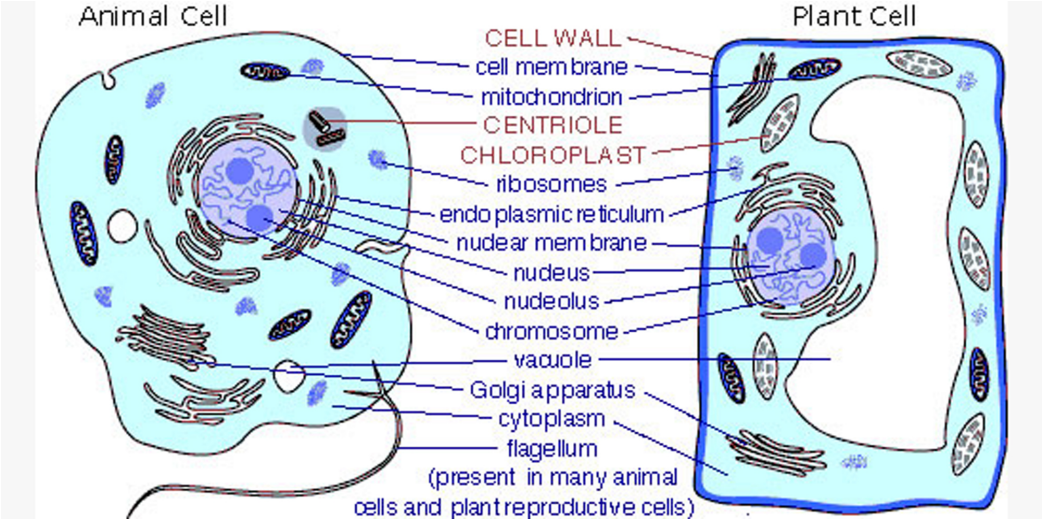
Due to the tradition, the cell theory has been established in a conversation between Schleiden and Schwann.



Theodor Schwann (the right man) was born on the 7th of December in 1810 in Neuss, in the near of Düsseldorf has been a German biologist who is known as the founder of the cell theory. Additionally, he discovered "Pepsin" the first enzym of animal tissue and experienced to debunk the assumption of spontanious generations. Up to 1829 he attended the university of Bonn where he met the physiologist Johannes Mueller. They also worked together in the laboratory where he also met Schleiden. Schwann moved to Wuerzburg to continue with his study and later in Berlin where he enrolled in 1834.

In the university of Berlin Schwann works again with Mueller (on the picture to the left) who motivated and encouraged him to dedicate his career to science. Soon Schwann celebrated his first success because he were able to demonstrate that there is another factor that works with hydrochloric acid in the human's stomach. Two years later, in 1836, Schann succeeded in isolating an active enzym to which he gave the name "Pepsin". Meanwhile his experiments concerning spontanious generations, he and Mueller (who actually had the idea) they observed the nerves during the muscle constraction Schwann discovered the nerve which surrounds and passes impulses. This discovery got his Sirname (Schwann'sche nerve cell or neuron). In 1838 he bacem famous and gt invovled into Schleiden's microscopic recoveries of plat cells. Together, they published their detections of the cell theory and its components in 1847 ("microscopical researches on the similarity in the structure and the growth of animals and plants"). Beginning in 1839 until 1848, Schwann taught as a professor in Louvain, a university in Belgium until he got the opportunity to teach in Liège which he accepted and stayed until 1880. His productivity was shrinking enormously after he left the influence of Mueller. As a result, he published only one writing about the tasks of the gall. Nevertheless, Schwann has been a respected and be-loved professor by his students. Also different countries got to know of Schwann's discoveries and this is the reason why he entered into the Royale Family and into the French Academy of Science. Additionally, in 1845 he achieved the Copley Medal. In 1882, the 11th of January, Theodor Schwann dies only 2 years after his retirement in Cologne- Neuss.

We are talking still about both scientists in today's times because of this discovery below:


Animal Cell
Plant Cell
CELL WALL
cell membrane
mitochondrion
CENTRIOLE
CHLOROPLAST
ribosomes
endoplasmic reticulum
nuclear membrane
nucleus
nucleolus
chromosome
vacuole
Golgi apparatus
cytoplasm
flagellum
(present in many animal
cells and plant reproductive cells)