

SANTIAGO RAMON Y CAJAL - THE GREAT SCIENTIST

Samarchuk A.S., student

Scientific supervisor – PhD, O.M. Gortinskya

Sumy State University, Department of Pathoanatomy

Santiago Ramon y Cajal was a Spanish pathologist, histologist, neuroscientist, and Nobel laureate. His pioneering investigations of the microscopic structure of the brain were original. He is considered by many to be the father of modern neuroscience. He was skilled at drawing, and hundreds of his illustrations of brain cells are still used for educational purposes today.

Cajal was born on May 1, 1852, at Petilla de Aragon, Spain. He himself wished to be an artist - his gift for draughtsman ship is evident in his published works. His father, however, who was Professor of Applied Anatomy in the University of Saragossa, persuaded him to study medicine, which he did, chiefly under the direction of his father.

In 1873 he took his Licentiate in Medicine at Saragossa and served, after a competitive examination, as an army doctor. He took part in an expedition to Cuba in 1874-75, where he contracted malaria and tuberculosis.

On his return to Spain he married Silveria Fananas Garcia in 1879, with whom he had four daughters and three sons. He became an assistant in the School of Anatomy in the Faculty of Medicine at Saragossa (1875) and then, at his own request, Director of the Saragossa Museum (1879). In 1877 he obtained the degree of Doctor of Medicine at Madrid and in 1883 he was appointed Professor of Descriptive and General Anatomy at Valencia. In 1887 he was appointed Professor of Histology and Pathological Anatomy at Barcelona and in 1892 he was appointed to the same Chair at Madrid. In 1900-1901 he was appointed Director of the «National Institute of the Hygiene» and of the «Laboratory of Biological investigations», later renamed to the Cajal Institute. In 1880 he began to publish scientific works, of which the following are the most important: «Manual of normal histology and micrographic technique», 1889. A summary of this manual recast with additions, appeared under the title «Elements of histology», 1897; «Manual of general pathological anatomy», 1890.

Apart from these works Cajal has published more than 100 articles in French and Spanish scientific periodicals, especially on the fine structure of the nervous system and especially of the brain and spinal cord, but including also that of muscles and other tissues, and various subjects in the field of general pathology. Cajal is also the author of «Rules and advices on scientific investigation», which appeared in six Spanish editions and was translated into German (1933).

Among the distinctions won by Cajal are the following: Member of the Royal Academy of Sciences of Madrid (1895); of the Royal Academy of Medicine of Madrid (1897); of the Spanish Society of Natural History and of the Academy of Sciences of Lisbon (1897); Honorary Member of the Spanish Medical and Surgical Academy and also of several other Spanish societies. He was also made honorary Doctor of Medicine of the Universities of Cambridge (1894) and Wurzburg (1896) and Doctor of Philosophy of the Clark University (Worcester, U.S.A., 1899). Santiago Ramón y Cajal died in Madrid on October 18, 1934.