DISCOVERY OF A CELLULAR STRUCTURE OF THE NERVOUS TISSUE

Summary

A great breakthrough in development of biological sciences was the cell theory formulated in the first half of the 19th century. It permitted a reduction of the studies of a huge diversity of living organisms to analysis of a single animal or plant cell. Till the end of the 19th century the nervous tissue was not described in terms of this theory, because a simple optical microscope was an insufficient instrument when applied in the studies of such complex but fascinating structure. The implementation of the new method of staining proposed by Golgi — *reazione nera*, opened the possibility of structural investigation of the nervous tissue. Camillo Golgi and Santiago Ramon y Cajal were the first to apply this method in cytological studies. They worked separately, on the same set of data, but the interpretations presented by each of them led to substantially different conclusions. The work of Cajal has become fundamental for development of the neuron theory, which – together with the postulate of the functional localization — is basic for the current knowledge of the structure and function of the nervous system. Therefore, Santiago Ramon y Cajal has been recognized as the precursor of the research discipline known as neuroscience.