

This work has been focused on anatomical and functional differentiation of the hippocampus. Hippocampus, as one of the most studied structures in the brain has an irreplaceable role in encoding, consolidation and recall of memories. In the early 20th century, Ramon y Cajal has divided hippocampus into 3 subregions, Ammon's horn (CA1-CA3 region), dentate gyrus and subiculum. Differences in gene expression, principal cell features and organization of connections with other structures suggests further division of the hippocampus according to septo-temporal axis, into ventral, dorsal and intermedial zone. Most importantly, the effects of impairment or inactivation of the individual subregions of the hippocampus, allow us to determine their prospective functions.