

SPECIFICATION OF A CA1-PYRAMIDAL NEURON SUBTYPE AND EVALUATION OF ITS ROLE DURING CHRONIC STRESS

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In the recent years the topographical and functional organization of the hippocampus has overcome the classic view of the tri-synaptic model. Currently, molecular, electrophysiological and structural studies delineate several neural subtypes in this brain region. However, the study of the precise developmental mechanisms that lead to this diversity or their role in neurological diseases is still on its initial stages. Here I will present the results of a project aimed to understand the relevance of hippocampal neuronal subtypes in the development of depressive symptoms caused by chronic stress. Specifically, we have identified a sub-type of CA1 pyramidal neuron involved in the appearance of depressive symptoms after repeated stressful stimuli. Furthermore, I will present data about how this cell sub-type matures during development and becomes a functional CA1-pyramidal neuron subtype.