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Processing of spatial and non-spatial information in rats with lesions of the medial and lateral entorhinal cortex: environmental complexity matters.

Running title: Entorhinal cortex and environmental complexity

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Abstract

The entorhinal-hippocampal circuitry has been suggested to play an important role in episodic memory but the contribution of the entorhinal cortex remains elusive. Predominant theories propose that the medial entorhinal cortex (MEC) processes spatial information whereas the lateral entorhinal cortex (LEC) processes non spatial information. A recent study using an object exploration task has suggested that the involvement of the MEC and LEC spatial and non-spatial information processing could be