

IGSN - COLLOQUIUM

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Everything you ever wanted to know about the hippocampus but were afraid to ask!

The hippocampus is not only the most beautiful of all brain structures, it is also the most important. Not surprisingly therefore it has been intensely studied. The prevailing view which dominates the literature is that the role of the hippocampus is to process spatial information and to form spatial memories. This is based on

- (i) the claim that hippocampal lesions affect performance on spatial tasks and not on non-spatial tasks,
- (ii) that the unit activity of hippocampal principal cell activity represents the spatial location of the animal (so called place cells), and
- (iii) synaptic plasticity, and in particular an NMDAR-dependent LTP-like mechanism, in the hippocampus provides the mechanism by which long-term associative spatial memories are formed and stored.

But is it really so straightforward, and are these key pieces of evidence really so watertight? All will be revealed!

Host:

Denise Manahan-Vaughan

Department of Neurophysiology, Faculty of Medicine, Ruhr-University Bochum

Guests are welcome!

