

# The effect of Medial Septum Stimulation on Hippocampal Place Cells and Behaviour



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## What is Medial Septum?

The medial septum is anatomically and functionally connected to the hippocampus and essential to the maintenance of hippocampal oscillations.

It provides hippocampus with GABAergic, cholinergic and glutamatergic fibres which are intimately related to memory

Moreover, the septum was the first brain region to be observed to elicit intracranial self-stimulation in rats.

We aimed to investigate how medial septum is involved in behaviour and spatial memory processing

Significance

The MS has modulatory effect over hippocampus and

## Place Preference

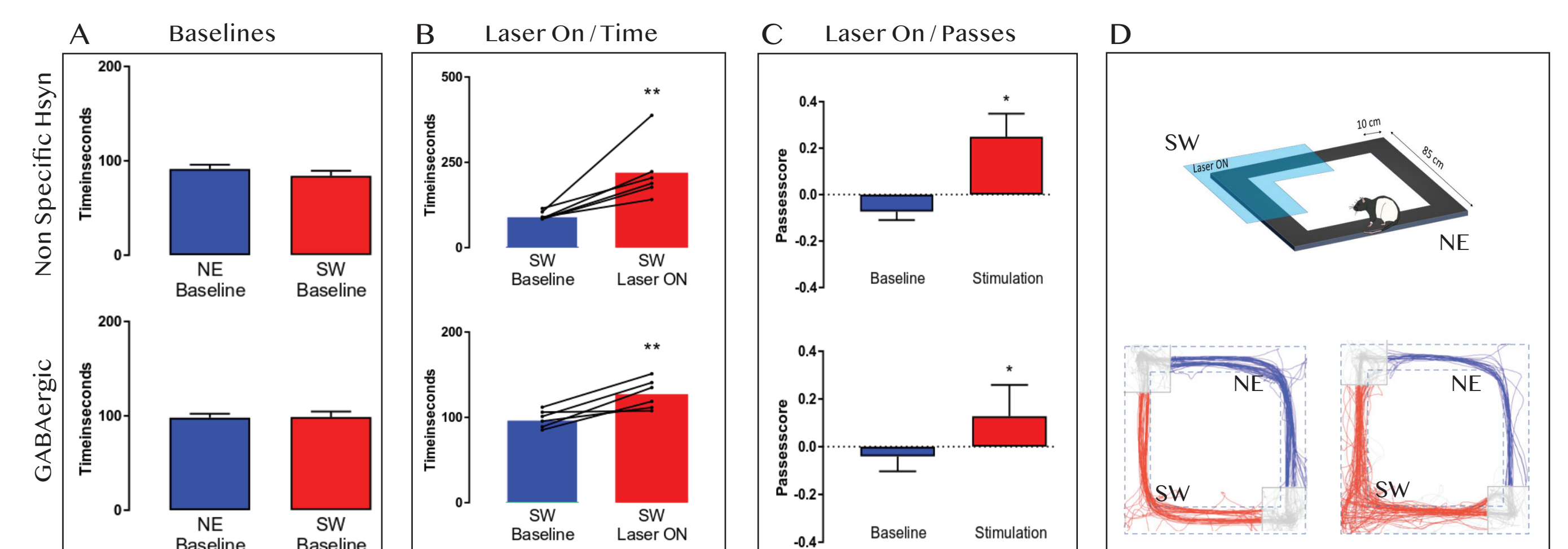
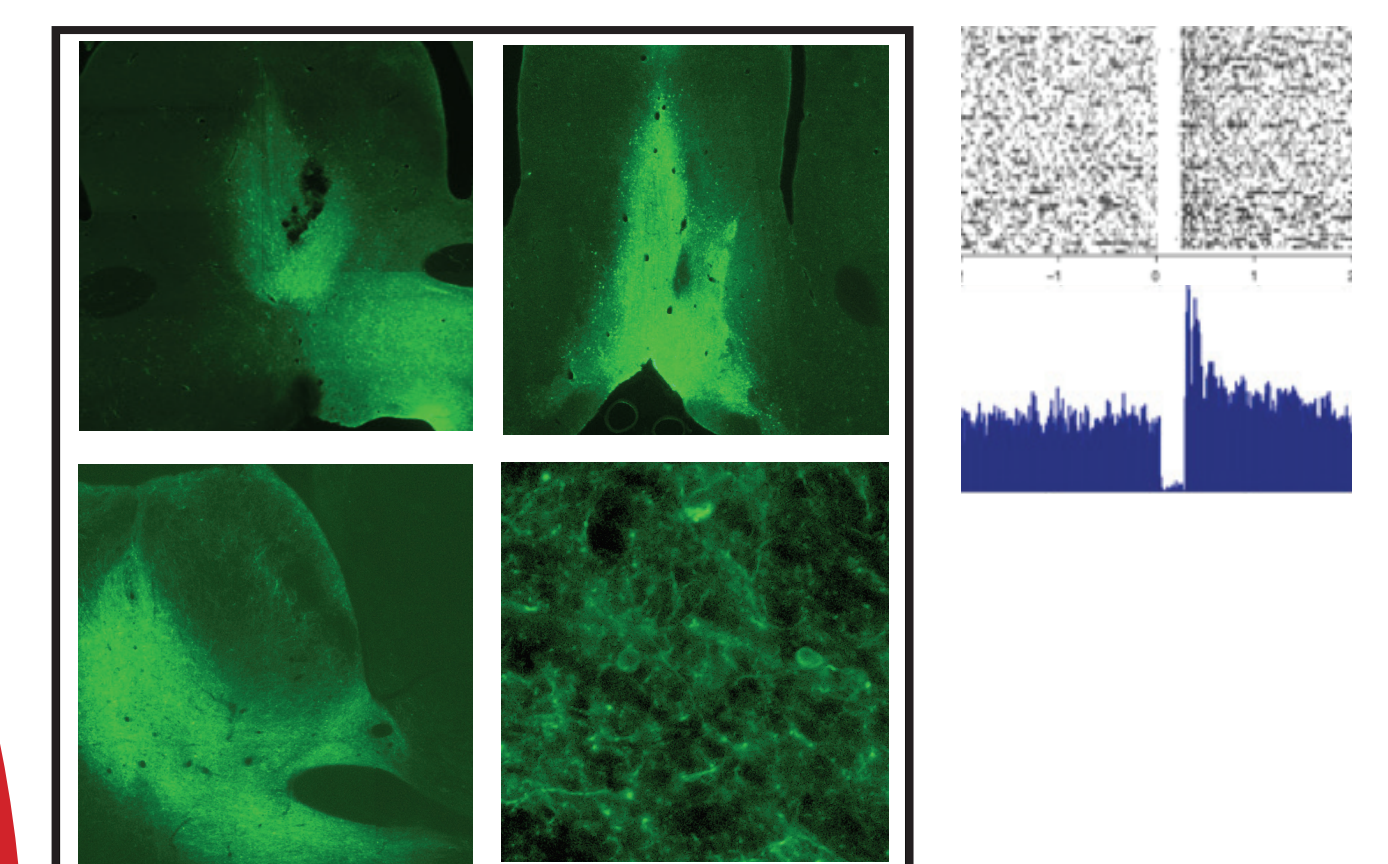


Fig1. Optogenetic stimulation of Medial Septum induces place preference: A: No significant differences in time spent on each side during the initial preference test ( $p > 0.05$ ) for both wild type and GAD transgenic model expressing channelrhodopsin GABAergic neurons.

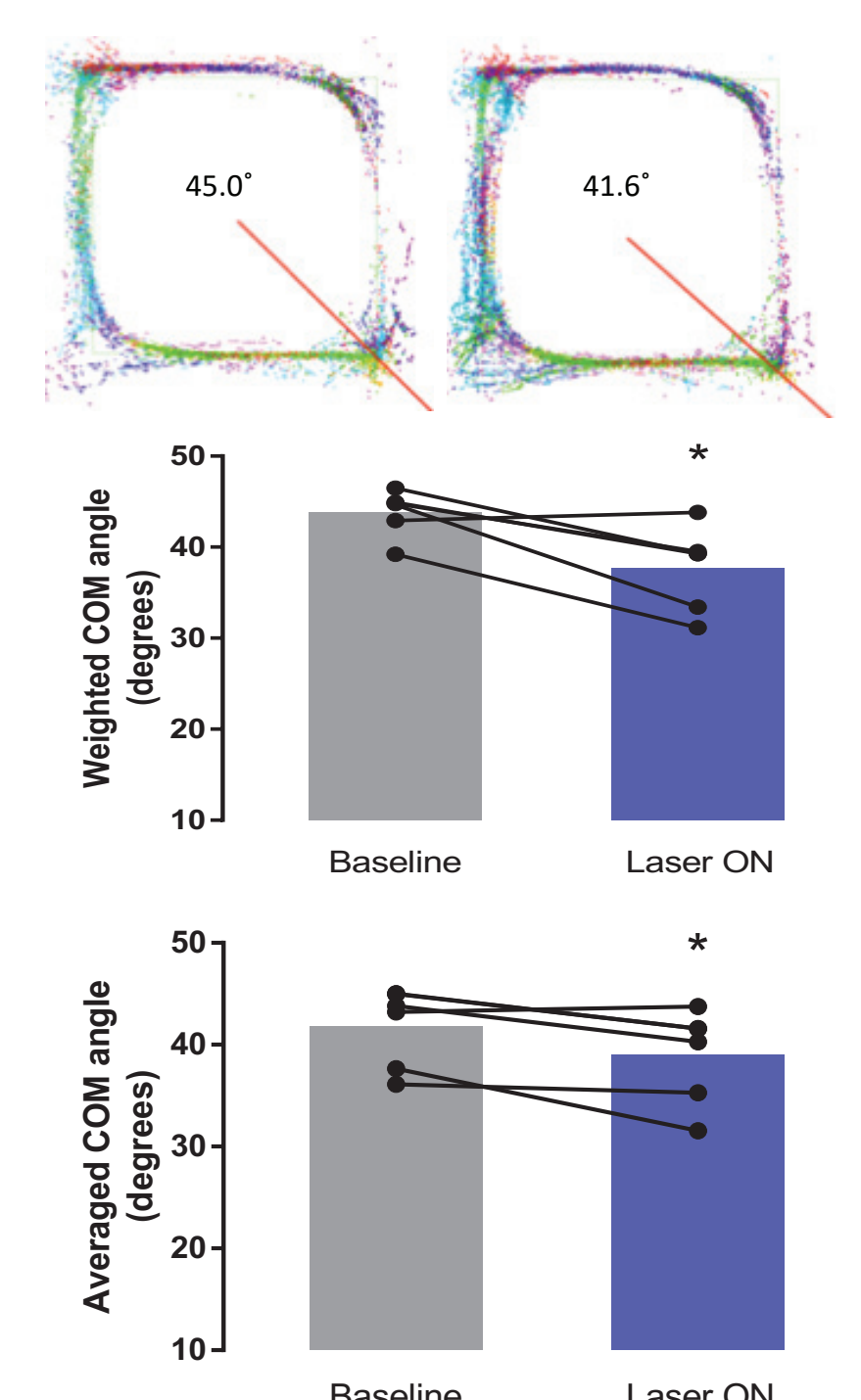
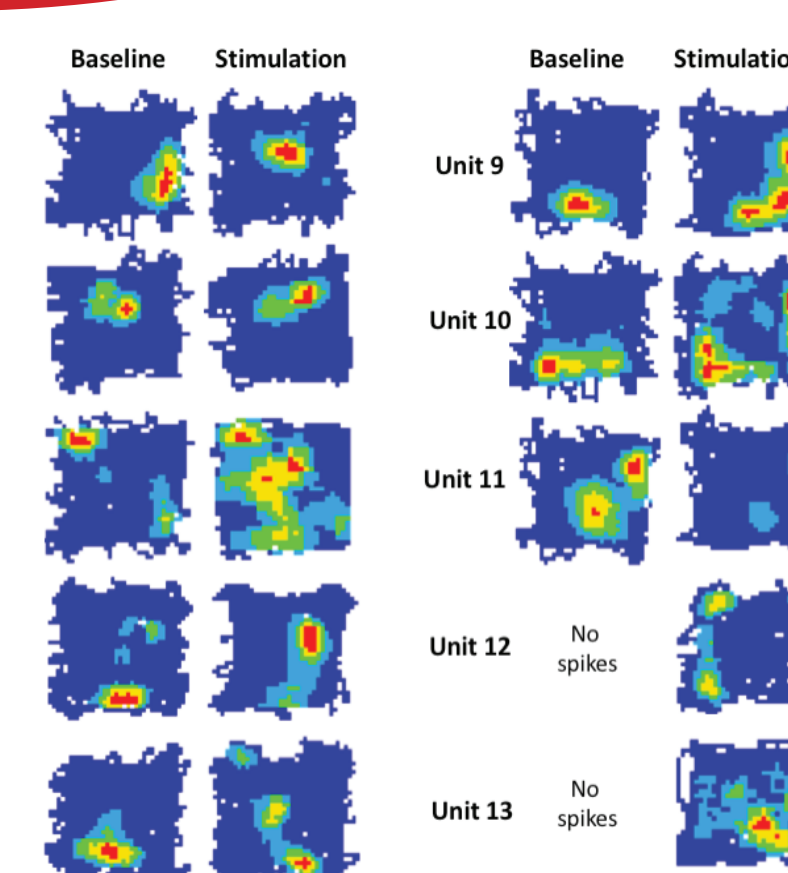
## Intra Septal Effect



## Our Approach

We

## Effect on Place Cells



## Conclusion

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