

## **Supporting Information for**

## Structure and function of the hippocampal CA3 module

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Figs. S1 to S2 SI References



Fig. S1. Connections as a function of intersomatic distances between recorded neuron pairs. Top, histogram showing the number of tested connections. Middle, histogram of number of found connections. Bottom, connectivity rate at different intersomatic distances, calculated as a ratio of found and tested connections.



**Fig. S2.** Sketch and rendered design of interface chamber used for slice storage. The chamber is based on a modified design of the perfusion chamber described by (1). The lower chamber is filled with water, which is heated to 34°C and bubbled with a mixture of oxygen and carbon dioxide (95%/5%, respectively). ACSF (heated to 34°C and bubbled with oxygen/carbon dioxide (95%/5%) is perfused through the upper chamber at a rate of 1 ml/min and via polyethylene tubing first running through the lower chamber, where the slices are stored on small squares of lens tissue. Nylon strings line the edges of the upper slice chamber to enable the flow of ACSF via capillary action over the slices.

## References

 H.L. Haas, B. Schaerer, M. Vosmansky, A simple perfusion chamber for the study of nervous tissue slices in vitro. J. Neurosci. Methods 1, 323–325 (1979).