

Supplementary Information

Journal: *Scientific Reports*

Article: Enhanced LTP of population spikes in the dentate gyrus of mice
haploinsufficient for neurobeachin

Authors: Julia Muellerleile^{1,2,*}, Aline Blistein^{1,*}, Astrid Rohlmann³, Frederike Scheiwe³,
Markus Missler³, Stephan W. Schwarzacher^{1,#}, Peter Jedlicka^{1,4,#}

¹*Institute of Clinical Neuroanatomy, Neuroscience Center, Goethe University Frankfurt,
Frankfurt/Main, Germany*

²*Faculty of Biosciences, Goethe University Frankfurt, Frankfurt/Main, Germany*

³*Institute of Anatomy and Molecular Neurobiology, University of Münster, Münster,
Germany*

⁴*Faculty of Medicine, Justus-Liebig-University Giessen, Giessen, Germany*

#Joint senior authors

*Corresponding authors (contributed equally to this work):

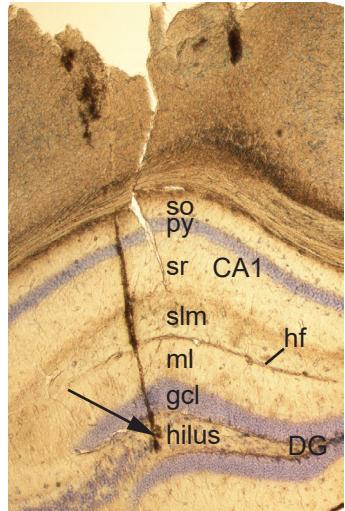
Julia Muellerleile
Institute of Clinical Neuroanatomy
Neuroscience Center
Goethe University Frankfurt
Theodor-Stern Kai 7
60590 Frankfurt/Main
Germany
Email: muellerleile@med.uni-frankfurt.de

Aline Blistein
Institute of Clinical Neuroanatomy
Neuroscience Center
Goethe University Frankfurt
Theodor-Stern Kai 7
60590 Frankfurt/Main
Germany
E-mail: aline_blistein@web.de

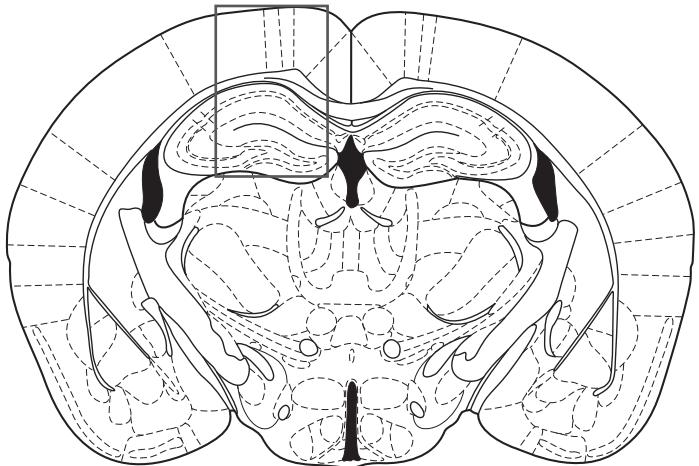
FIGURE S1: Histological verification of stimulation and recording sites.

Nissl-stained sections showing the recording electrode position in the hilus of the dentate gyrus (DG) (top left) and the stimulation electrode placement in the angular bundle of the perforant path (bottom left) in one mouse. Arrows indicate the electrode tracks. Anatomical regions were labeled using a mouse brain atlas (reprinted with permission from *The mouse brain in stereotaxic coordinates*, K. B. J. Franklin & G. Paxinos, Figures 45 and 61, Academic Press, 2001). Abbreviations:
CA1=cornu ammonis 1, DG=dentate gyrus, gcl=granule cell layer,
hf=hippocampal fissure, dhc=dorsal hippocampal commissure, ml=molecular layer,
py=pyramidal cell layer, slm=stratum lacunosum moleculare, so=stratum oriens,
sr=stratum radiatum.

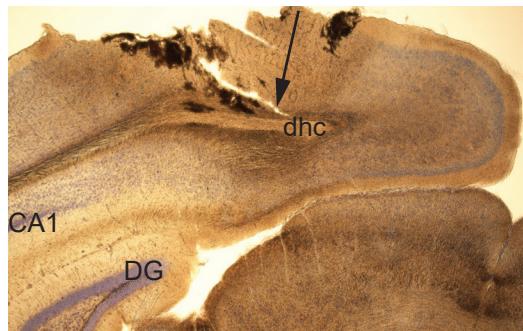
**recording: bregma -1.7 mm,
1.0 mm from midline**



bregma -1.7 mm



**stimulation: bregma -3.7 mm,
2.5 mm from midline**



bregma -3.64 mm

