Meyer, Wimmer, Oberlaender, de Kock, Sakmann, Helmstaedter: *Number and laminar distribution of neurons in a thalamocortical projection column of rat vibrissal cortex*

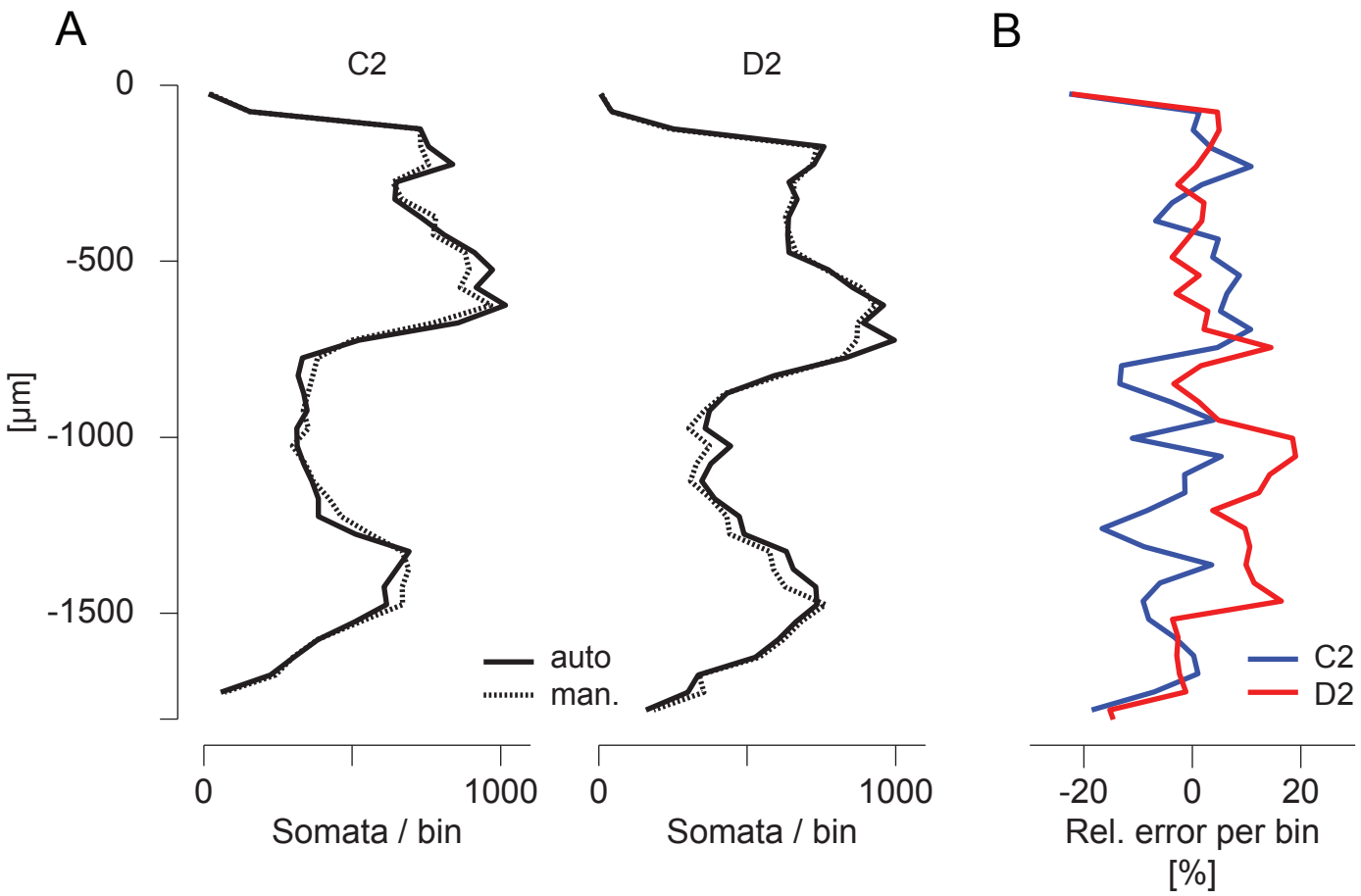
Supplementary Figure 1.

Comparison of the automated counting method with manual counts of two entire columns

A Soma density along the vertical column axis, computed based on entirely manual counts of NeuN positive cell bodies (dashed black lines); and soma densities computed from the automated counting results (solid black lines). **B** Relative deviation of the automated counts from the manual counts in dependence of depth along the vertical column axis. The average absolute error per bin was 6.8 % and 6.9 % for the C2 and D2 columns, respectively. These values matched well the previous calibrations of the automated method (Oberlaender et al., 2009). Note that for measuring the total number of neurons in a column, the deviations per bin average; thus the deviation for the number of neurons in a column based on purely automated counting is only -0.4% (18597 (manual) vs. 18525 (automated)), and 2.9% (19379 (manual) vs. 19945 (automated)) for the C2 and D2 columns, respectively.

References:

Oberlaender M, Dercksen VJ, Egger R, Gensel M, Sakmann B, Hege HC (2009) Automated three-dimensional detection and counting of neuron somata. J Neurosci Methods 180:147-160.



Suppl. Figure 1
Meyer et al.