

HIGHLIGHTS AND ACHIEVEMENTS



SP1 Relevant Publications

Comprehensive Morpho-Electrotonic Analysis Shows 2 Distinct Classes of L2 and L3 Pyramidal Neurons in Human Temporal Cortex

Deitcher Y, Eyal G, Kanari L, Verhoog MB, Atenekeng Kahou GA, Mansvelder HD, de Kock CPJ, Segev I

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Original Article

ORIGINAL ARTICLE

Comprehensive Morpho-Electrotonic Analysis Shows 2 Distinct Classes of L2 and L3 Pyramidal Neurons in Human Temporal Cortex

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Christiaan P.J. de Kock, and Idan Segev share senior authorship

- ➔ Using several cluster analysis methods, as well as cable theory, a large data set of human L2/L3 pyramidal cells were analyzed from the temporal cortex
- ➔ This yielded a systematic description of the morphological, biophysical, and cable properties of HL2/L3 pyramidal cells (PCs)
- ➔ In this study 2 distinct morpho-electrotonic types within this population were found. These types were termed “slim-tufted” and “profuse-tufted” pyramidal neurons

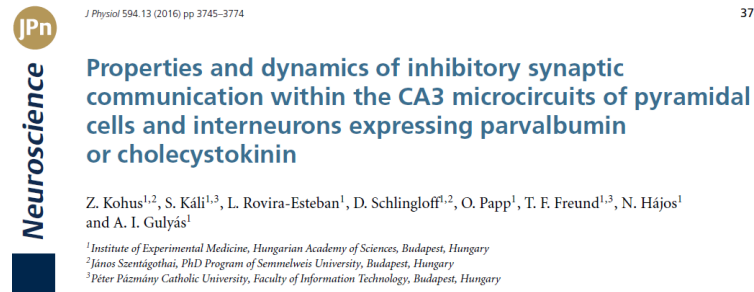


SP1 Relevant Publications

Properties and dynamics of inhibitory synaptic communication within the CA3 microcircuits of pyramidal cells and interneurons expressing parvalbumin or cholecystokinin

Z. Kohus, S.Káli, L. Rovira-Esteban, D. Schlingloff, O.Papp, T.F.Freund, N.Hájos and A. I. Gulyás

The Journal of Physiology, 2016. 594:3745-3774



- ➔ The results of the present study enable the construction of precise neuronal network models that may help us understand how network dynamics is generated and how it can underlie information processing and pathological conditions in the brain
- ➔ This study shows how inhibitory dynamics between parvalbumin-positive basket cells and pyramidal cells could contribute to sharp wave-ripple generation