

## Principales publications

1. Debanne D (2004) Information processing in the axon. **Nature Reviews Neuroscience** 5: 304-316.
2. Daoudal G & Debanne D (2003) Long-term plasticity of intrinsic excitability: learning rules and mechanisms. **Learning & Memory** 10: 456-465.
3. Sourdet V, Russier M, Daoudal G, Ankri N & Debanne D (2003) Long-term enhancement of neuronal excitability and temporal fidelity mediated by metabotropic glutamate receptor subtype 5. **J Neurosci** 23: 10238-10248.
4. Garrido J, Giraud, P, Carlier E, Fernandez F, Moussif A, Fache MP, Debanne D & Dargent B (2003) A targeting motif that determines sodium channel clustering at the axonal initial segment. **Science** 300: 2091-2094.
5. Russier M, Carlier E, Ankri N, Fronzaroli L & Debanne D (2003) A-, T- and H-type currents shape intrinsic firing of developing rat abducens motoneurons. **J Physiol (London)** 549: 21-36.
6. Daoudal G, Hanada Y & Debanne D (2002) Bi-directional plasticity of EPSP-spike coupling in CA1 hippocampal pyramidal neurons. **Proc Natl Acad Sci USA** 99: 14512-14517.
7. Russier M, Kopysova IL, Ankri N, Ferrand N & Debanne D (2002) GABA and glycine co-release optimizes functional inhibition of rat brainstem motoneurons *in vitro*. **J Physiol (London)** 541: 123-137.
8. Debanne D, Gähwiler BH & Thompson SM (1999) Heterogeneity of synaptic plasticity at unitary connections in rat hippocampal slice cultures. **J Neurosci** 19: 10664-10671.
9. Sourdet V & Debanne D (1999) The role of dendritic filtering in associative long-term synaptic plasticity. **Learning & Memory** 6: 422-447.
10. Kopysova IL & Debanne D (1998) Critical role of axonal A-type  $K^+$  channels and axonal geometry in the gating of action potential propagation along CA3 pyramidal cell axons: a simulation study. **J Neurosci** 18: 7436-7451.
11. Debanne D, Shulz DE & Frégnac Y (1998) Activity dependent regulation of ON- and OFF-responses in cat visual cortical receptive fields. **J Physiol (London)** 508: 523-548.
12. Debanne D, Gähwiler BH & Thompson SM (1998) Long-term synaptic plasticity between pairs of individual CA3 pyramidal cells in the rat hippocampal slice cultures. **J Physiol (London)** 507: 237-247.
13. Debanne D, Gähwiler BH & Thompson SM (1997). Bidirectional associative plasticity of unitary CA3-CA1 synapses in the rat hippocampus *in vitro*. **J Neurophysiol** 77: 2851-2855.
14. Debanne D, Guérineau NC, Gähwiler BH & Thompson SM (1997). Action potential propagation gated by an axonal  $I_A$ -like  $K^+$  conductance in hippocampus. **Nature** 389: 286-289.
15. McKinney RA, Debanne D, Gähwiler BH & Thompson SM (1997) Hyperexcitability and lesion induced sprouting in area CA3: implications for the genesis of post traumatic epilepsy. **Nature Medicine** 3: 990-996.
16. Debanne D, Gähwiler BH & Thompson SM (1996). Cooperative interactions in the induction of long-term potentiation and depression of synaptic excitation between hippocampal CA3-CA1 cell-pairs *in vitro*. **Proc Natl Acad Sci USA** 93: 11225-11230.
17. Debanne D, Guérineau NC, Gähwiler BH & Thompson SM (1996). Paired-pulse facilitation and depression at unitary synapses in rat hippocampus: quantal variation affects subsequent release. **J Physiol (London)** 491: 163-176.
18. Debanne D, Guérineau, NC, Gähwiler BH & Thompson SM (1995). Physiology and pharmacology of unitary synaptic connections between pairs of cells in areas CA3 and CA1 of rat hippocampal slice cultures. **J Neurophysiol** 73: 1282-1294.

19. Debanne D, Gähwiler BH & Thompson SM (1994). Asynchronous pre- and postsynaptic activity induces long-term depression in area CA1 of the rat hippocampus *in vitro*. **Proc Natl Acad Sci USA** 91: 1148-1152.