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Assistant Professor, Neuroscience Center and Cell Biology and Anatomy Dept., 1997-2001

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Current Position:

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Selected Publications while at LSU Neuroscience Center of Excellence:

Losonczy A, Magee JC. Integrative properties of radial oblique dendrites in hippocampal CA1 pyramidal neurons. Neuron. 2006;50:291-307.

S. Gasparini and **J.C. Magee** (2004). On the initiation and propagation of dendritic spikes in CA1 pryamidal neurons. *J. Neurosci*. 24:11046-11056*****.

B.Andrásfalvy and **J. C. Magee** (2004) Changes in AMPA Receptor Currents Following LTP Induction on CA1 Pyramidal Neurons. *J. Physiol.* 559.2:356-368.

A. Frick, **J.C. Magee** and D. Johnston (2004). Long-term potentiation is accompanied by an enhanced local excitability of pyramidal neuron dendrites. *Nature Neurosci. 7:126-132******.

A. Frick, **J.C. Magee**, H. Koester and D. Johnston (2003). Normalization of Ca^{2+} signals by small oblique dendrites of CA1 pyramidal neurons. *J. Neurosci.* 23: 3243-3250.

B. Andrasfalvy, M. Smith and **J.C. Magee** (2003). GluR1 containing AMPA receptors are required for distance-dependent synaptic scaling. *J. Physiol.* 552: 35-45.

M. Smith G. Ellis-Davies and **J.C. Magee** (2003). Synaptic mechanisms of distance-dependent synaptic scaling in CA1 pyramidal neurons. *J. Physiol.* 548.2: 601-611.

C. McDermott, G. LaHoste, C Chen, N.G. Bazan and **J.C. Magee** (2003). Sleep deprivation reduces synaptic plasticity and membrane excitability in hippocampal neurons. *J. Neurosci.* 23: 9687-9695*****.

S. Gasparini and **J.C. Magee** (2002). Phosphorylation-dependent differences in the activation properties of distal and proximal dendritic Na^{+} channels in rat CA1 hippocampal neurons. *J. Physiol.* 541.3: 665-672.

C Chen, **J.C. Magee** and N.G. Bazan (2002). COX-2 regulates PGE2 signaling in hippocampal long-term synaptic plasticity. *J. Neurophysiol.* 87: 2851-2857.

B. Andrasfalvy and **J.C. Magee** (2001). Distance-dependent increase in dendritic AMPA receptor numbers in CA1 pyramidal neurons. *J. Neurosci.* 21:23-29.

J.C. Magee (2001). Dendritic mechanisms of phase-precession in hippocampal CA1 pyramidal neurons. *J. Neurophysiol.* 86:528-532.

C Chen, **J.C. Magee,** V. Marcheselli, M. Hardy and N.G. Bazan (2001). Attenuated LTP in hippocampal dentate gyrus neurons of mice deficient in the platelet-activating factor receptor. *J. Neurophysiol.* 85: 384-390.

J.C. Magee and E.P. Cook (2000). Synaptic weight is independent of synapse location in hippocampal pyramidal neurons. *Nature Neuroscience* 3:895-903*****.

J.C. Magee and M. Carruth (1999). Dendritic voltage-gated ion channels regulate the action potential firing mode of hippocampal CA1 pyramidal neurons. *J. Neurophysiol.* 82:1895-1901.

J.C. Magee (1999). Temporal integration of widespread synaptic input is normalized by a nonuniform I_h density in hippocampal CA1 neurons. *Nature Neuroscience* 6:508-514.

M. Migliore, D. Hoffman, **J.C. Magee**, and D. Johnston (1999). Role of an A-type K^+ conductance in the back-propagation of action potentials in the dendrites of hippocampal pyramidal neurons. *J. Comput. Neurosci* 7:2-15.