

**Publications 2000-2005 that acknowledge  
support by P30 HD38985**

**2005 Publications**

- Campbell, S. and **Hablitz, J.J.** Modification of epileptiform discharges in neocortical neurons following glutamate uptake inhibition. *Epilepsia* 46:129-133, 2005.
- DeFazio, R.A., and **Hablitz, J.J.** Horizontal spread of activity in neocortical inhibitory networks. *Developmental Brain Research* 157:83-92, 2005.
- Li, R., Johnson A.B., Salomons, G., Goldman, J.E., Naidu, S., Quinlan, R., Cree, B., Ruyle, S.Z., Banwell, B., D'Hooghe, M., Siebert, J. R., Rolf, C.M., Cox, H., Reddy, A., Gonzalez Gutierrez-Solana, L., Collins, A., Weller, R.O., Messing, A., van der Knaap, M.S. and **Brenner, M.** Glial fibrillary acidic protein mutations in infantile, juvenile, and adult forms of Alexander Disease. *Annals of Neurology* 57:310-326, 2005.
- Neul, J. L., Maricich, S.M., Islam, M., Barrish, J., O'Brian Smith, E., Bottiglieri, T., Hyland, K., Humphreys, P., **Percy, A.** and Glaze, D. Spinal fluid 5-methyletrahydrofolate levels are normal in Rett Syndrome. *Neurology* 64:2151-2152, 2005.
- Percy, A.K.** and Lane, J.B. Rett Syndrome: Model of Neurodevelopmental Disorders. *Journal of Child Neurology* 20:718-721, 2005.
- Ribelayga, C. and **Mangel, S.C.** A circadian clock and light/dark adaptation differentially regulate adenosine in the mammalian retina. *The Journal of Neuroscience* 25:215-222, 2005.
- van der Knaap, M.S., Salomons, G.S., Li, R., Franzoni, E., Gonzalez Gutierrez-Solana, L., Smit, L.M.E., Robinson, R., Ferrie, C.D., Cree, B., Reddy, A., Thomas, N., Banwell, B., Barkhof, F., Jakobs, C., Johnson, A., Messing, A. and **Brenner, M.** Unusual variants of Alexander's disease. *Annals of Neurology* 57:327-38, 2005.
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- Olsen, M.L., H. Higashimori, S.L. Campell, **J.J. Hablitz,** and **H. Sontheimer.** Functional expression of Kir4.1 channels in spinal cord astrocytes. *GLIA*, in press.
- McFerrin, M.B. and **H. Sontheimer.** A role for ion channels in glioma cell invasion. *Neuron Glial Biology*, in press.
- Kankirawatana, P., Leonard, H., Ellaway, C., Scurlock, J., Mansour, A., Makris, C.M., Dure, L.S. Friez, M., Lane, J., Kiraly-Borri, C., Fabian, V., Davis, M., Jackson, J., Christodoulou, J., Kaufmann, W., Ravine, D. and **Percy, A.K.** Early Progressive Encephalopathy in Males with *MECP2* Mutations. *Neurology*, in press.

**2004 Publications**

- Alonso, M., Medina, J.H. and **Pozzo-Miller, L.** ERK1/2 activation is necessary for BDNF to increase dendritic spine density in Hippocampal CA1 pyramidal neurons. *Learning & Memory* 11:172-178, 2004.
- Campbell, S. L. and **Hablitz, J.J.** Glutamate transporters regulate excitability in local networks in rat neocortex. *Neuroscience* 127:625-635, 2004.
- Dmitriev, A.V. and **Mangel, S.C.** Retinal pH reflects retinal energy metabolism in the day and night. *Journal of Neuroscience* 91:2404-2412, 2004.
- Percy, A.K.** and Lane, J.B. Rett syndrome: clinical and molecular update. *Current Opinion in Pediatrics* 16:670-677, 2004.
- Su, M., Hu, H., Lee, Y., d'Azzo, A., Messing, A. and **Brenner, M.** Expression specificity of GFAP transgenes. *Neurochemical Research* 29:2075-2093, 2004.
- Thyagarajan, D., Chataway, T., Li, R., Gai, W. P. and **Brenner, M.** Dominantly-inherited adult-onset leukodystrophy with palatal tremor caused by a mutation in the glial fibrillary acidic protein gene. *Movement Disorders* 19: 1244-1247, 2004.
- Yang, X-L, Wen, C.X. and **Mei, L.** Lipid rafts in neuregulin signaling at synapses. *Life Sciences* 75:2495-2504, 2004.

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- Bordey, A. and **Sontheimer, H.** Modulation of glutamatergic transmission by Bergmann Glial cell in rat cerebellum in situ. *J. Neurophysiol.* 89:979-988, 2004.
- Fenster, S.D., Kessels, M.M., Qualmann, B., Chung, W.J., Nash, J., Gundelfinger, E.D. and **Garner, C.C.** Interactions between Piccolo and the Actin/Dynamin-binding Protein Abp1 Link Vesicle Endocytosis to Presynaptic Active Zones. *Journal of Biological Chemistry* 278.22:20268-20277, 2003.
- Gavrikov, K.E., Dmitriev, A.V., Keyser, K.T. and **Mangel, S.C.** Cation-chloride cotransporters mediate neural computation in the retina. *Proceedings of the National Academy of Sciences* 100:16047-16052, 2003.
- Gonzalez-Islas, C. and **Hablitz, J.J.** Dopamine enhances EPSCs in layer –III pyramidal neurons in rat prefrontal cortex. *The Journal of Neuroscience* 23:867-875, 2003.
- Kim, C-H, Xiong, W.C. and **Mei, L.** Regulation of MuSK expression by a novel signaling pathway. *Journal of Biological Chemistry* 278.40: 38522-38527, 2003.
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- Olsen, M., Schade, S., Lyons, S.A., Amaral, M.D. and **Sontheimer, H.** Expression of voltage-gated chloride channels in human glioma cells. *The Journal of Neuroscience* 23:5572-5582, 2003.
- Ribelayga, C. and **Mangel S.C.** Absence of circadian clock regulation of horizontal cell gap junctional coupling reveals two dopamine systems in the goldfish retina. *Journal of Comparative Neurology* 467:243-253, 2003.
- Ribelayga, C., Wang, Y. and **Mangel, S.C.** A circadian clock in the fish retina regulates dopamine release via activation of melatonin receptors. *Journal of Physiology* 554.2: 467-482, 2003.
- Tyler, W.J. and **Pozzo-Miller, L.** Miniature synaptic transmission and BDNF modulate dendritic spine growth and form in rat CA1 neurons. *Journal of Physiology* 553:497-509, 2003.

### **2002 Publications**

- Coleman, L-A. and **Friedlander, M.J.** Postnatal dendritic development of Y-like geniculocortical relay neurons. *International Journal of Developmental Neuroscience* 20:137-159, 2002.
- Covernton, P. O. J. and **Lester, R.A. J.** Prolonged stimulation of presynaptic nicotinic acetylcholine receptors in the rat interpeduncular nucleus has differential effects on transmitter release. *International Journal of Developmental Neuroscience* 20:247-258, 2002.
- Dobrunz, L.E.** Release probability is regulated by the size of the readily releasable vesicle pool at excitatory synapses in hippocampus. *International Journal of Developmental Neuroscience* 20:225-236, 2002.
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- Huang, Y.Z., Wang, Q., Won, S., Luo, Z.G., Xiong, W.C. and **Mei, L.** Compartmentalized NRG signaling and PDZ domain-containing proteins in synapse structure and function. *International Journal of Developmental Neuroscience* 20:173-185, 2002.
- Li, R., Messing, A., Goldman, J.E. and **Brenner, M.** GFAP mutations in Alexander disease. *International Journal of Developmental Neuroscience* 20:259-268, 2002.
- Lyons, S.A., O'Neal, J. and **Sontheimer, H.** Chlorotoxin, a scorpion-derived peptide, specifically binds to gliomas and tumors of neuroectodermal origin. *GLIA* 39:162-173, 2002.
- McCutchen, M.E., Bramham, C.R. and **Pozzo-Miller, L.D.** Modulation of neuronal calcium signaling by neurotrophic factors. *International Journal of Developmental Neuroscience* 20:199-207, 2002.
- Quick, M.W.** Substrates regulate  $\beta$ -aminobutyric acid transporters in a syntaxin 1A-dependent manner. *Proceedings of the National Academy of Sciences* 99:5686-5691, 2002.
- Quick, M.W.** Role of syntaxin 1A on serotonin transporter expression in developing thalamocortical neurons. *International Journal of Developmental Neuroscience* 20:219-224, 2002.
- Reilly, K.D.** Agent computing themes in biologically inspired models of learning and development. *International Journal of Developmental Neuroscience* 20:269-285, 2002.
- Rodgers, E.E. and **Theibert, A.B.** Functions of PI 3-kinase in development of the nervous system. *International Journal of Developmental Neuroscience* 20:187-197, 2002.
- Sedelnikova, A. and **Weiss, D.S.** Phosphorylation of the recombinant p1 GABA receptor. *International Journal of Developmental Neuroscience* 20:237-246, 2002.

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- Tyler, W.J., Alonso, M., Bramham, C.R., & **Pozzo-Miller, L.D.** From acquisition to consolidation: on the role of brain-derived neurotrophic factor signaling in hippocampal-dependent learning. *Learn.Mem.* 9(5), 224-237.(2002).
- Tyler, W.J., Perrett, S.P. and **Pozzo-Miller, L.** The role of neurotrophins in neurotransmitter release. *The Neuroscientist* 8.6:524-531, 2002.
- Wu, H., Nash, J.E., Zamorano, P. and **Garner C.C.** Interaction of SAP97 with Minus-end-directed Actin Motor Myosin VI. *Journal of Biological Chemistry* 277.34:30928-30934, 2002.
- Ye, Z-C. and **Sontheimer, H.** Modulation of glial glutamate transport through cell interactions with the extracellular matrix. *International Journal of Developmental Neuroscience* 20:209-217, 2002.

## **2001 Publications**

- Whitworth, T.L. and **Quick, M.W.** Substrate-induced regulation of  $\alpha$ -Aminobutyric acid transporter trafficking requires tyrosine phosphorylation. *Journal of Biological Chemistry* 276.46:42932-42937, 2001.



