

### **Peer Reviewed Papers:**

1. **Sharp, A.A.** and Fromherz, S. (2011) Optogenetic Regulation of Leg Movement in Midstage Chick Embryos through Peripheral Nerve Stimulation. *J. Neurophys.* 2011; 106(5):2776-82. Epub 2011 Aug 31. [Abstract](#).
2. **Sharp, A.A.**, Ortega, A.M., Restrepo, D. and Gall, K. (2009) *In Vivo* Penetration Mechanics and Mechanical Properties of Mouse Brain Tissue at Micrometer Scales. *IEEE Trans Bio Eng.* 56(1):45-53. [Abstract](#).
3. **Sharp, A.A.**, Panchawagh, H.V., Ortega, A., Artale, R., Richardson-Burns, S., Finch, D.S., Gall, K., Mahajan, R.L. and Restrepo, D. (2006). Towards a Self-Deploying Shape Memory Polymer Neuronal Electrode. *J. Neural Eng.* **3**:L23-L30. [Abstract](#).
4. **Sharp, A.A.** and Finger, T.E. (2002). GABAergic Modulation of Primary Gustatory Afferent Synaptic Transmission. *J. Neurobiol.* **52**:133-143. [Abstract](#).
5. **Sharp, A.A.**, Ma, E. and Bekoff, A. (1999). Developmental changes in leg coordination of the chick at embryonic days 9, 11 and 13: uncoupling of ankle movements. *J. Neurophys.* **82**:2406-2414. [Abstract](#).
6. **Sharp, A.A.** and Caldwell, J.H. (1996). Aggregation of sodium channels induced by a postnatally upregulated isoform of agrin. *J. Neurosci.* **16**:6775-6783. [Abstract](#).
7. **Sharp, A.A.**, Skinner, F.K. and Marder, E. (1996). Mechanisms of oscillation in dynamic clamp constructed two cell half-center circuits. *J. Neurophysiol.* **76**:867-883. [Abstract](#).
8. **Sharp, A.A.**, O'Neil, M.B., Abbott, L.F. and Marder, E. (1993). The dynamic clamp: artificial conductances in biological neurons. *TINS.* **16**:389-394. [Abstract](#).
9. **Sharp, A.A.**, O'Neil, M., Abbott, L.F. and Marder, E. (1993). The dynamic clamp: computer generated conductances in real neurons. *J. Neurophysiol.* **69**:992-995. [Abstract](#).
10. **Sharp, A.A.**, Abbott, L.F. and Marder, E. (1992). Artificial electrical synapses in oscillatory networks. *J. Neurophysiol.* **67**:1691-1694. [Abstract](#).

### **Invited Book Chapters:**

1. **Sharp, A.A.** and Bekoff, A. (2001). Sensory-motor experience during the development of motility in chick embryos. In: *Motor Neurobiology of the Spinal Cord*. T. Cope, ed., CRC Press. pp 171-191. PDF.
2. O'Neil, M.B., Abbott, L.F., **Sharp, A.A.**, Turrigiano, G.G. and Marder, E. (1995). The dynamic clamp: simulating with neurons. In: *The Handbook of Brain Theory and Neural Networks*. Arbib, M.A., ed., Bradford, MIT Press, Cambridge, pp 326\_329.
3. Marder, E., Abbott, L.F., LeMasson, G., O'Neil, M.B., Renaud-LeMasson, S. and **Sharp, A.A.**, (1994). Biological simulators: Computer modification of neuronal conductances and formation of novel networks. In: *Enabling Technologies for Cultured Neural Networks*. Stenger, D.A. and McKenna, T.M., eds., Academic Press.
4. Marder, E., Abbott, L.F., **Sharp, A.A.** and Kopell, N., (1993). Electrical coupling in networks containing oscillators. In: *Research Notes in Neural Computing*. Rudomin, P., Arbib, M., Cervantes, F., and Romo, R., eds., Springer-Verlag.

**Issued Patents:**

1. Zane, R., Popovic, Z., **Sharp, A.** and Restrepo, D. "Systems and Methods for Receiving and Managing Power in Wireless Devices". U.S. Patent No. 7,956,572. Issued: June 7, 2011
2. Finch, D., Restrepo, D., Gall, K. and **Sharp, A.** "Shape Memory Polymer Coated electrodes". U.S. Patent No. 7,689,260. Issued: March 30, 2010.