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Department of Neuroscience and Cell Biology
PhD, The Graduate Center, City University of New York, 1983
Postdoctoral Research Fellowships:
Department of Sensory Neurophysiology, CNRS, Gif-sur-Yvette, France (ISERM) Neurophysiology 1984. Dr. Thomas Szabo Advisor
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Research Interests: Molecular and structural changes associated with traumatic brain injury and spinal cord injury. Using mouse models, we are examining the role of epigenetic factors, neurotrophins and other injury signals in mediating loss of function following traumatic injury to the central nervous system (CNS). One particular area of interest is neuroinflammation: how it is initiated and how might it be managed following CNS injury and in degenerative disease. Other interests include oligodendrocyte function; cell cycle; neural and glial progenitors; anatomy of the somatosensory system; development and maintenance of sensory maps.

Selected Publications. Full List: https://pubmed.ncbi.nlm.nih.gov/?term=crockett%20dp

1. DiBona, VL, Zhu, W., Shah, M,K, Rafalia, A., Ben Cheikh, H., **Crockett, D.P**., Zhang, H. (2019) Loss of Par1b/MARK2 primes microglia during brain development and enhances their sensitivity to injury. Journal of Neuroinflammation,. 16(1): 11 https://doi.org/10.1186/s12974-018-1390-3
2. Alder, J., Fujioka, W., Giarratana, a., Wissocki, J., Thakkar, K., Vuong, P., Patel, B., Chakraborty, T., Elsabeth, r., Parikh, A., Girm, H.S., **Crockett, D**., Thakker-Varia, S. (2016) Genetic and pharmacological intervention of the p75NTR pathway promotes morphological and behavioral recovery following traumatic brain injury in mice. Brain Injury Jan;30(1):48-65.
3. Alder, J., Fujioka, W. Lifshitz, J., **Crockett, D.P**. Thakker-Varia, S. (2011) Lateral Fluid Percussion: Model of Traumatic Brain Injury in Mice. Journal of Visualized Experiments 54. http://www.jove.com/details.php?id=3063
4. Thompson, K., Dibona, V.L., Dubey, A., **Crockett, D.P**., Rasin, M.R., 2010. Acute adaptive responses of central sensorimotor neurons after spinal cord injury. Translational Neuroscience, 1(4) 268 -278.
5. Cooper, MA. Gale, NW, **Crockett, DP**, Nowakowski, RS and Zhou, R. 2009. Expression of EphA5 receptor in the developing and adult mouse nervous system. Journal of Comparative Neurology 514:310-328.
6. Meiners, S., Harris, S.L., Delgado-Rivera, R., Ahmed, I., Babu, A.N., Patel, R.P., and **Crockett, D.P**. A nanofibrillar prosthetic modified with fibroblast growth factor-2 for spinal cord repair. In Nanofibers: Fabrication, Performance, and Applications. F. Columbus, ed. Nova Science Publishers, Inc., Hauppage, NY, (2009).
7. Rocha MA, **Crockett DP**, Wong LY, Richardson JR, and Sonsalla PK. 2008. Na(+)/H(+) exchanger inhibition modifies dopamine neurotransmission during normal and metabolic stress conditions. J Neurochem. 106:231-243

8. Schindler M, Nur-E-Kamal, Ahmed I, Kamal J, Liu HY, Amor N, Ponery AS, **Crockett DP**, Grafe TH, Chung HY, Weik T, Jones E, and Meiners S. 2006. Living in three dimensions: 3D nanostructured environments for cell culture and regenerative medicine. Cell Biochem Biophys 45:215-227.
9. **Crockett DP**, Burshteyn M, Garcia C, Muggironi M, and Casaccia-Bonnefil P. 2005. Number of oligodendrocyte progenitors recruited to the lesioned spinal cord is modulated by the levels of the cell cycle regulatory protein p27Kip-1. Glia 49:301-308.
10. Hu Z, Cooper M, Crockett DP, and Zhou R. 2004. Differentiation of the midbrain dopaminergic pathways during mouse development. J Comp Neurol 476:301-311.
11. Hu Z, Yue X, Shi G, Yue Y, **Crockett DP**, Blair-Flynn J, Reuhl K, Tessarollo L, and Zhou R. 2003. Corpus callosum deficiency in transgenic mice expressing a truncated ephrin-A receptor. J Neurosci 23:10963-10970.
12. Stern JM, Yu YL, and **Crockett DP**. 2002. Dorsolateral columns of the spinal cord are necessary for both suckling-induced neuroendocrine reflexes and the kyphotic nursing posture in lactating rats. Brain Res 947:110-121.
13. Yue Y, Chen ZY, Gale NW, Blair-Flynn J, Hu TJ, Yue X, Cooper M, **Crockett DP**, Yancopoulos GD, Tessarollo L, and Zhou R. 2002. Mistargeting hippocampal axons by expression of a truncated Eph receptor. Proc Natl Acad Sci U S A 99:10777-10782.
14. **Crockett DP**, Harris SL, and Egger MD. 2000. Neurotrophin receptor (p75) in the trigeminal thalamus of the rat: development, response to injury, transient vibrissa-related patterning, and retrograde transport. Anat Rec 259:446-460.
15. **Crockett DP**, Wang L, Zhang RX, and Egger MD. 1999. Distribution of the low-affinity neurotrophin receptor (p75) in the developing trigeminal brainstem complex in the rat. Anat Rec 254:549-565.

Books, Monographs and Chapters

1. Bronstein, P. M., and **Crockett, D. P**. (1980). Rat pups' food consumption as a function of preweaning tastes and odors. In D. Muller-Schwarze and R. W. Silverstein (Eds.) Chemical signals: Vertebrates and aquatic invertebrates. New York: Plenum.

Theses

1. **Crockett, DP**. Rat Pups' Neophobic and Toxiphobic Responses at Weaning. MA Thesis Brooklyn College, Brooklyn, NY (1976)
2. **Crockett, DP**. The role of the Electric Organ Discharge in Social Interactions of Mormyrid Fish (Mormyridae, Osteoglossomorpha). PhD Thesis City University of New York, New York, NY (1983