James Zheng
"Inhibitory Mechanisms of Axonal Growth in Spinal Neurons" - Open

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My lab received one individual research grant and a postdoctoral fellowship to investigate the signal transduction of myelin-associated axon inhibition. We believe that a better understanding of the signal transduction underlying myelin associated axon inhibition will allow the development of therapeutic strategies to promote axon regeneration after spinal cord injury. The funding from NJCSCR has allowed my lab to spend a considerable portion of effort on research related to spinal cord injury and regeneration. We have so far published three peer-reviewed papers in high-impact journals that are supported by NJCSCR grants.

(1) Han J, Han L, Tiwari P, Wen Z, Zheng JQ (2006). Spatial Targeting of Type II Protein Kinase A to Filopodia Mediates the Regulation of Growth Cone Guidance by cAMP. Journal of Cell Biology, in press.

(2) Yao J, Sasaki Y, Bassell G, and Zheng JQ (2006). An Essential Role for ß-actin mRNA Localization and Translation in Ca2+-dependent Growth Cone Guidance. Nature Neuroscience 9 (10):1265-1273.

(3) Gomez TM and Zheng JQ (2006). Molecular Basis for Calcium-Dependent Axon Pathfinding. Nature Review Neuroscience. 7 (2):115-125 (featured review article, peer reviewed).