CURRICULUM VITAE
Pengzhe (Paul) Lu, Ph.D.

PERSONAL DATA

Name: Pengzhe (Paul) Lu
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EDUCATION

B.S. : Biology, Beijing Normal University, China, 1982
M.S. : Botany, Beijing University, China, 1985
Ph.D. : Biology, University of California, Davis, CA, 1996

POSTDOCTORAL TRAINING

Post-doctoral fellow	Univ. of California – Davis	Jan. 1996-Dec. 1996
Post-doctoral fellow	Univ. of California – San Diego	1998-2003

APPOINTMENTS (Please list inclusive dates)

Lecturer	Liaoning Normal Univ., China, 1985-1989
Research Health Science Specialist	VA-San Diego Medical Center, 2006-present
Assistant Project Neuroscientist	Univ. of California – San Diego, 2003-2006
Assistant Research Neuroscientist	Univ. of California – San Diego, 2006-2009
Associate Research Neuroscientist	Univ. of California – San Diego, 2009-2015
Associate Adjunct Professor	Univ. of California – San Diego, 2015-present

PROFESSIONAL AFFILIATIONS

Society for Neuroscience	1998-present
Chinese Neurotrauma Scholar Association	2013-present
Sigma Xi, The Scientific Research Society	1991-1998
Botanical Society of American	1990-1996

SERVICE TO LOCAL VA MEDICAL CENTER

Member of the Institutional Biosafety Committee (IBC) at VA – San Diego Healthcare System, 2007-2014.
Chair of the Institutional Biosafety Committee (IBC) at VA – San Diego Healthcare System, 2015.

SERVICE TO NATIONAL VA

RR&D Scientific Merit Review Board, 2010-2014

SERVICE TO AFFILIATED UNIVERSITY

Header of spinal cord injury research group, Center For Neural Repair, UCSD
Member of Ad Hoc Committee, Department of Neurosciences, UCSD

SERVICE TO PROFESSIONAL ORGANIZATIONS

External reviewer:

Christopher Reeve Foundation	3/26/04
Hong Kong Research Grants Council	3/24/06
Craig H. Neilsen Foundation	4/4/08; 4/25/17

Smithsonian.	1/15/08
Rick Hansen Foundation	5/26/14
Coquare Paralysis	3/1/2016
Neurological Foundation of New Zealand	4/18/17

Associate Editor for World Journal of Stem Cell, 2014- present

Guest Editor for Neuroscience Letter, Special Issue: Plasticity and Regeneration After Spinal Cord Injury, 2017

Invited reviewer: J Neuroscience, Biomaterals, Experimental Neurology, J Neurotruma, Neuroscience, Cell Transplantation, Differentiation, Brain Science, Cytotherapy, Neural Regeneration and Research, and more than 50 scientific journals.

PROFESSIONAL AWARDS AND HONORS

Henry A. Jastro Fellowship, UC Davis	1993-1995
Jastro-Shields Graduate Research Scholarship, UC Davis	1991-1994
Chinese Government Visiting Scholarship, UC Davis	1989-1990
Excellent Student Award and Student Research Award, Beijing Normal Univ., China	1981
Graduate Student Thesis Award, Beijing University, China	1985

EXTRAMURAL ACTIVITIES:

Invited Speaker, Xi'an Jiaotong Uinversity, China, 8/5/16
Invited Speaker, Shandong Uinversity, China, 8/2/16
Invited Foreign Experter and invited Speaker, Stem Cells and Regenerative Medicine Institute, Liaocheng People's Hospital, China, 7/23-8/1/16
Invited Speaker, 2015 Reeve-Irvine Medal Symposium, Univ. California, Irvine, 11/5/15
Invited Speaker, Summer Open House, Rutgers Univ., 7/15/15
Seminar, University of California at Los Angeles, 1/23/15
Invited Speaker, Fourth Chinese Neurotrauma Scholar Association Satellite Meeting, San Francisco, CA, 6/27/14
Invited Speaker, Miami Project Research Day, Univ. of Miami, 2/28/14
Invited Speaker and Session Chair, 3rd International Neural Regeneration Symposium, Shenyang, China, 10/12/13
Seminar, Xuzhou Medical University, China, 10/16/13
Seminar, Suzhou Medical University, China, 10/18/13
Seminar, Drexel University Medical School, Philadelphia, PA, 9/12/12
Seminar, Sharp Memory Hospital, San Diego, 3/5/12
Invited Speaker, UCSD Spinal Cord Regeneration Symposium, 7/7/11
Seminar, Beijing Capital School of Medicine, China, 6/16/11
Seminar, VA-San Diego Spinal Cord Injury Unit, 5/15/07
Scientific Advisor, Paul Jacobson Spinal Cord Foundation, 2004-2008

BIBLIOGRAPHY

a. Papers published or in press in peer-reviewed journals.

1. **Lu, P.** 1981. Investigation of plankton algae in Miyun Reservoir. Students' J. Beijing Normal Univ. 1: 33-35 (in Chinese).
2. **Lu, P.**, K. Cui and C. Lee. 1987. Preliminary investigation of regeneration of 14 seed plants after girdling. Acta Bot. Sinica 29: 111-113 (in Chinese with English abstract).

3. Xu, A. and **P. Lu**. 1988. Foster student's ability to study independently through "unit teaching". Higher Education Research 1: 60-69 (in Chinese).
4. Lee, C., K. Cui and **P. Lu**. 1988. Studies on regeneration after girdling of Broussonetia papyriferia (L.) Vent.. Acta Bot. Sinica 30: 236-241 (in Chinese with English abstract).
5. **Lu, P.**, A. Xu, E. Han and X. Li. 1988. The multinucleate fibers and septate fibers in the leaf of sorghum. J. Liaoning Normal Univ., n.s. Edi. 2: 29-53 (in Chinese with English abstract).
6. Cui, K., **P. Lu**, Q. Liu and C. Lee. 1989. Regeneration of vascular tissues in Broussonetia papyriferia (L.) Vent. after removal of the xylem. IAWA Bulletin (n.s.) 10: 193-199.
7. Xu, A. and **P. Lu**. 1990. The silica cells and silica bodies in the vegetative organ of sorghum. Acta Agronomic Sinica 16: 57-65 (in Chinese with English abstract).
8. Rost, T. L., **P. Lu** and D. K. Gladish. 1991. The occurrence of vascular cavities and specialized parenchyma cells in the roots of cool-season legumes. Bot. Acta 104: 300-305.
9. **Lu, P.**, D. K. Gladish and T. L. Rost. 1991. Temperature-induced cavities and specialize parenchyma cells in vascular cylinder of pea root. Amer. J. Bot. 78: 729-739.
10. Jernstedt, J. A., E. G. Cutter, E. M. Gifford and **P. Lu**. 1992. Angle meristem origin and development in Selaginella martensii. Ann. Bot. 69: 351-363.
11. Jernstedt, J. A., E. G. Cutter and **P. Lu**. 1994. Independence of organogenesis and cell pattern in developing angle shoots of Selaginella martensii. Ann. Bot. 74: 343-355.
12. Niki, T., D. K. Gladish, **P. Lu** and T. L. Rost, 1995. Cellular changes precede cavity formation in vascular cylinder of pea root (Pisum sativum L. cv Alaska). Int. J. Plant Sci. 156: 290-302.
13. **Lu, P.** and J. A. Jernstedt, 1996. Rhizophore and root development in Selaginella martensii: Meristem transition and identity. Int. J. Plant Sci. 157: 180-194.
14. **Lu, P.**, R. Porat, J. Nadeau and S. O'Neill, 1996. Identification of a meristem L1 layer-specific gene in Arabidopsis that is expressed during embryonic pattern formation and defines a new class of homeobox genes. Plant Cell 8: 2155-2168.
15. Zheng, C. C., R. Porat, **P. Lu**, and S. O'Neill. 1998. PNZIP is a novel mesophyll-specific cDNA that is regulated by phytochrome and a circadian rhythm and encodes a protein with a leucine zipper motif. Plant Physiol. 116: 27-35.
16. Porat, R., **P. Lu** and S. O'Neill. 1998. Arabidopsis Skp1, a homologue of a cell cycle regulator gene, is predominantly expressed in meristematic cells (*** **P. Lu**, the co-first author). Planta 204: 345-351.
17. **Lu, P.**, A. Blesch and M. Tuszynski. 2001. Neurotrophism without neurotropism: BDNF promotes survival but not growth of lesioned corticospinal neurons. J. Comp. Neurol. 436: 456-470.
18. Tuszynski, M., R. Grill, L. Jones, A. Brant, A. Blesch, K. Low, S. Lacroix, **P. Lu**. 2003. NT-3 gene delivery elicits growth of chronically injured corticospinal axons and modestly improves functional deficits after chronic scar resection. Exp Neurol. 181: 47-56.
19. **Lu, P.**, L. Jones, E. Snyder and M. Tuszynski. 2003. Neural stem cells constitutively secrete neurotrophic factors and promote robust host axonal growth after spinal cord injury. Exp. Neurol. 181: 115-129.

20. **Lu, P.**, A. Blesch and M. Tuszynski. 2004. Induction of bone marrow stromal cells to neurons: differentiation, transdifferentiation or artifact? J. Neurosci. Res. 77: 174-191.
21. **Lu, P.**, H. Yang, L. Jones, M. T. Filbin and M. Tuszynski. 2004. Combinatorial therapy with neurotrophins and cAMP promotes axonal regeneration beyond sites of spinal cord injury. J. Neurosci. 24: 6402-6409.
22. **Lu, P.**, L. Jones, M. Tuszynski. 2005. BDNF-expressing marrow stromal cells support extensive axonal growth at sites of spinal cord injury. Exp Neurol. 191:344-360.
23. **Lu, P**, H Yang, M Culbertson, L Graham, AJ Roskams and MH Tuszynski. 2006. Olfactory ensheathing cells do not exhibit unique migratory or axonal growth-promoting properties after spinal cord injury. J. Neurosci 26(43):11120-30.
24. Yang H., **P. Lu**, H. M. McKay, T. Bernot, H. Keirstead, O. Steward , F. H. Gage, V. R. Edgerton, M. H. Tuszynski. 2006. Endogenous neurogenesis replaces oligodendrocytes and astrocytes after primate spinal cord injury. J Neurosci. 26:2157-2166.
25. **Lu, P**, L Jones, MH Tuszynski. 2007. Axon regeneration through scars and into sites of chronic spinal cord injury. Exp Neurol 203(1):8-21.
26. Schachtrup C, **Lu P**, Jones LL, Lee JK, Lu J, Sachs BD, Zheng B, Akassoglou K. 2007. Fibrinogen inhibits neurite outgrowth via beta 3 integrin-mediated phosphorylation of the EGF receptor. Proc Natl Acad Sci U S A. 104(28):11814-9.
27. Kadoya K, Tsukada S, **Lu P,** Coppola G, Dan Geschwind D, Filbin M, Blesch A and Tuszynski M. 2009. Combined Intrinsic and Extrinsic Neuronal Mechanisms Facilitate Bridging Axonal Regeneration One Year after Spinal Cord Injury. Neuron 64:165-172.
28. Rosenzweig ES, Brock JH, Culbertson MD, **Lu P,** Moseanko R, Edgerton VR, Havton LA, Tuszynski MH. 2009. Extensive spinal decussation and bilateral termination of cervical corticospinal projections in rhesus monkeys. J Comp Neurol. 513(2):151-63.
29. Hollis ER 2nd, **Lu P,** Blesch A, Tuszynski MH. 2009. IGF-I gene delivery promotes corticospinal neuronal survival but not regeneration after adult CNS injury. Exp Neurol. 215(1):53-9.
30. Blesch A, **Lu P,** Tsukada S, Taylor L, Roet K, Coppola G, Geschwind D, and Tuszynski MH. 2012. Conditioning Lesions Before or After Spinal Cord Injury Recruit Broad Genetic Mechanisms That Sustain Axonal Regeneration: Superiority to cAMP-Mediated Effects. Exp Neurol. 235(1):162-73**.**
31. **Lu P,** Blesch A, Graham L, Wang Y, Samara R, Banos K, Haringer V, Havton L, Weishaupt N, Bennett D, Fouad K, Tuszynski MH. 2012 Motor axonal regeneration after partial and complete spinal cord transection. J Neurosci. 32(24):8208-18.
32. **Lu, P,** Wang Y, Graham, L, McHale A.K., Gao M, Wu D, Brock, J, Blesch, A, Rosenzweig E, Havton L, Zheng B, Conner J, Marsala M and MH. Tuszynski. 2012. Long-distance growth and connectivity of neural stem cells after severe spinal cord injury. Cell 150(6):1264-73.
33. Hou S, **Lu P,** Blesch A. 2013. Characterization of supraspinal vasomotor pathways and autonomic dysreflexia after spinal cord injury in F344 rats. Auton Neurosci. 176:54-63.
34. Hou S, Tom VJ, Graham L, **Lu P,** Blesch A. 2013. Partial restoration of cardiovascular function by embryonic neural stem cell grafts after complete spinal cord transection. J Neurosci. 33(43):17138-49.

35. Zhao J, Sun W, Cho HM, Ouyang H, Li W, Lin Y, Do J, Zhang L, Ding S, Liu Y, **Lu P**, Zhang K. 2013. Integration and long distance axonal regeneration in the central nervous system from transplanted primitive neural stem cells. J Biol Chem. 288(1):164-8.

36. Gao M, **Lu P,** Bednark B, Lynam D, Conner JM, Sakamoto J, Tuszynski MH. 2013. Templated agarose scaffolds for the support of motor axon regeneration into sites of complete spinal cord transection. Biomaterials. 34:1529-36.

37. Kwon BK, Soril LJ, Bacon M, Beattie MS, Blesch A, Bresnahan JC, Bunge MB, Dunlop SA, Fehlings MG, Ferguson AR, Hill CE, Karimi-Abdolrezaee S, **Lu P,** McDonald JW, Müller HW, Oudega M, Rosenzweig ES, Reier PJ, Silver J, Sykova E, Xu XM, Guest JD, Tetzlaff W. 2013. Demonstrating efficacy in preclinical studies of cellular therapies for spinal cord injury - how much is enough? Exp Neurol. 248:30-44.

38. Lu, P, Graham L, Wang Y, Wu D, Tuszynski, M. 2014. Promotion of Survival and Differentiation of Neural Stem Cells with Fibrin and Growth Factor Cocktails after Severe Spinal Cord Injury. *J. Vis. Exp.* (89), e50641.

39. Lu P, Woodruff G, Wang Y, Graham L, Wu D, Poplawski G, Brock J, Goldstein L, and Tuszynski T. 2014. Long-distance axonal growth of neural stem cells derived from human induced pluripotent stem cells after spinal cord injury. Neuron, 83(4):789-96.

40. Hou S. Blesch A, **Lu P.** 2014. A radio-telemetric system monitors cardiovascular functional improvements in rats with embryonic neural stem cell grafts in transected spinal cords. J. Vis. Exp. (92), e51914.

41. Kwon BK, Streijger F, Hill CE, Anderson AJ, Bacon M, Beattie MS, Blesch A, Bradbury EJ, Brown A, Bresnahan JC, Case CC, Colburn RW, David S, Fawcett JW, Ferguson AR, Fischer I, Floyd CL, Gensel JC, Houle JD, Jakeman LB, Jeffery ND, Jones LA, Kleitman N, Kocsis J, **Lu P,** Magnuson DS, Marsala M, Moore SW, Mothe AJ, Oudega M, Plant GW, Rabchevsky AS, Schwab JM, Silver J, Steward O, Xu XM, Guest JD, Tetzlaff W. Large animal and primate models of spinal cord injury for the testing of novel therapies. Exp Neurol. 2015 Apr 19;269:154-168.

42. Kadoya K, **Lu P,** Nguyen K, Lee-Kubli C, Kumamaru H, Yao L, Knackert J, Poplawski G, Dulin JN, Strobl H, Takashima Y, Biane J, Conner J, Zhang SC, Tuszynski MH. 2016. Spinal cord reconstitution with homologous neural grafts enables robust corticospinal regeneration. Nat Med. 22(5):479-87.

43. Gao M, **Lu P,** Lynam D, Bednark, B, Campana WM, Sakamoto J and Tuszynski MH. 2016. BDNF gene delivery within and beyond templated agarose multi-channel guidance scaffolds enhances peripheral nerve regeneration. J. Neural Eng. 13 **(**2016**)** 066011 **(**9pp**).**

44. Robinson J and **Lu P.** 2017. Optimization of trophic support for neural stem cell grafts in sites of spinal cord injury. Exp Neurol, 291:87-97.

45. Hunt M, Lu P, Tuszynski MH. 2017. Myelination of axons emerging from neural progenitor grafts after spinal cord injury. Exp Neurol. 296:69-73.

46. Lu P, Ceto S, Wang Y, Graham L, Wu D, Kumamaru H, Staufenberg E and Tuszynski MH. 2017. Prolonged human neural stem cell maturation supports recovery in injured rodent CNS. J Clin Invest, 127(9):3287-3299.

47. Dulin JN, Adler AF, Kumamaru H, Poplawski GHD, Lee-Kubli C, Strobl H, Gibbs D, Kadoya K, Fawcett JW, Lu P, Tuszynski MH. 2018. Injured adult motor and sensory axons regenerate into appropriate organotypic domains of neural progenitor grafts. Nat Commun. 9(1):84.

48. Rosenzweig ES, Brock JH, Lu P, Kumamaru H, Salegio EA, Kadoya K, Weber JL, Liang JJ, Moseanko R, Hawbecker S, Huie JR, Havton LA, Nout-Lomas YS, Ferguson AR, Beattie MS, Bresnahan JC, Tuszynski MH. 2018. Restorative effects of human neural stem cell grafts on the primate spinal cord. Nat Med. 2018 Feb 26. doi: 10.1038/nm.4502. [Epub ahead of print]

b. Review articles

1. Blesch A., **Lu P.** and M.Tuszynski. 2002. Neurotrophic factors, gene therapy, and neural stem cells for spinal cord repair. Brain Res. Bull. 57: 833-8.
2. **Lu P.** and M. Tuszynski MH. 2005. Can bone marrow-derived stem cells differentiate into functional neurons? Exp. Neurol. 193:273-278 (review).
3. **Lu P,** MH Tuszynski. 2008. Growth factors and combinatorial therapies for CNS regeneration. Exp Neurol. 209:313-320.
4. Dulin J and **Lu P.** 2014. Bridging the injured spinal cord with neural stem cells. Neural Regeneration Res 9, 229-231.
5. Tuszynski MH, Wang Y, Graham L, Gao M, Wu D, Brock J, Blesch A, Rosenzweig ES, Havton LA, Zheng B, Conner JM, Marsala M, **Lu P.** 2014. Neural stem cell dissemination after grafting to CNS injury sites. Cell 156:388-9.
6. **Lu P,** Kadoya K, Tuszynski MH. 2014. Axonal growth and connectivity from neural stem cell grafts in models of spinal cord injury. Curr Opin Neurobiol. 2014 Aug;27C:103-109.
7. Tuszynski MH, Wang Y, Graham L, McHale K, Gao M, Wu D, Brock J, Blesch A, Rosenzweig ES, Havton LA, Zheng B, Conner JM, Marsala M, **Lu P.** 2014. Neural stem cells in models of spinal cord injury. Exp Neurol. 261:494-500.
8. Lee-Kubli CA and **Lu P.** 2015. Induced pluripotent stem cell-derived neural stem cell therapies for spinal cord injury. Neural Regeneration Res 10:10-16.
9. Hou S. and **Lu P.** 2016. Direct reprogramming of somatic cells into neural stem cells or neuronal cells for neurological disorders. Neural Regeneration Res, 11:28-31.
10. van Niekerk EA, Tuszynski MH, **Lu P,** Dulin JN. 2016. Molecular and Cellular Mechanisms of Axonal Regeneration After Spinal Cord Injury. Mol Cell Proteomics. 15(2):394-408.
11. **Lu P.** and Tuszynski MH. 2017. Introduction to Neuroscience Letter Special Issue: “Plasticity and Regeneration After Spinal Cord Injury”. Neurosci Lett. 652:1-2.

c. Books and book chapters

1. **Lu, P.** and M. Tuszynski. 2003. Stem cells for spinal cord injury. In: Zigova T, Snyder EY, and Sanberg PR Eds, Neural Stem Cells for Brain Repair. The Humana Press, p347-365.
2. Tuszynski MH and **P Lu.** 2008. Axon plasticity and regeneration in injured spinal cord. (in CNS REGENERAION, Basic Science and Clinical Advances, Second Edition, Edited by JH Kordower and MH Tuszynski. Academic Press. Chapter 13, page 319-335.
3. **Lu P,** T Mead. 2008. Trends in the neural transdifferentiation of bone marrow-derived stem cells. (in “New Cell Differentiation Research Topics”, Edited by Hitoshi Saitama, Nova Science Publishers, Inc. Chapter IV, pp. 153-181).
4. **Lu P**, Ahmad R, Tuszynski Mark. 2016. Neural Stem Cells for Spinal Cord Injury. Translational Neuroscience 1st ed. Tuszynski Mark H, editor. New York: Springer. Chapter 16, pages 297-315.
5. **Lu P.** 2017. Stem cell transplantation for spinal cord injury repair. *Functional Neural Transplantation IV: Translation to Clinical Application* Neuroscience (Part B),

Dunnett, Stephen and Björklund Anders, editors. New York: Elsevier. Chapter 1, page 1-32. Academic Press, London.

d. Patents

Methods for Use of Neural Grafts For Treatment of Central Nervous System Lesions, Univ. of California at San Diego, ATTORNEY DOCKET NO: ST-UCSD3810-1, 2011

RESEARCH SUPPORT

Ongoing Research Support

1. Implant of a safety switch in iPSCs derived neural stem cells for spinal cord repair
R21 NS103074-01 (7/1/2017 to 6/30/2019)
Overall Goal: Determine whether implantation of a suicide gene, HSV-TK, into human iPSCs and their derived neural stem cells could prevent graft expansion and tumor formation in a spinal cord injury transplantation model.
Role: PI

2. Enhancing Corticospinal Tract Axonal Regeneration After Spinal Cord Injury
VA-RR&D 1 I01 RX002264-01A2 (7/1/2017 to 6/30/2021)
Overall Goal: Determine whether combination of neural progenitor cell graft, PTEN inhibition, and skilled motor rehabilitation enhances corticospinal tract regeneration after moderate bilateral low cervical contusive spinal cord injury.
Role: PI

3. Characterization of Chronic Contusive Spinal Cord Injury and Promotion of Corticospinal Tract Regeneration
VA-BLR&D 1I01BX003892-01A1 (7/1/18 to 6/30/2022)
Overall Goal: Identify the cellular and molecular pathophysiology of chronic SCI, especially the chronic corticospinal tract neurons and their axons, then develop therapies based on a rational and data-driven analysis of our new understanding of chronic injury.
Role: PI

4. Translational Collaborative Consortia: “Axonal Regeneration After Spinal Cord Injury”
VA grant (B7332R) (7-2015 to 6-2020)
Role on Project: Co-investigator
This project is primarily focused on development of neural stem cell therapies in spinal cords of non-human primates.

Completed Research Support

1. Transplantation of Neural Progenitors as Functional Relay for Spinal Cord Injury, VA Merit Review (4/12-9/16)
Overall Goal: Determine whether transplanted neural progenitors can serve as neuronal relays to restore functional connectivity after severe spinal cord injury.
Role: PI

2. Restore Synaptic Connectivity of Injured Spinal Cord with Human Embryonic Neurons, VA Merit Review Pilot (4/12-3/14))
Overall Goal: Determine whether transplanted human neural stem cells can differentiate into mature neurons that can serve as neuronal relays to restore functional connectivity after spinal cord injury.
Role: PI

3. Combinatorial Therapies for Motor Axon Regeneration after SCI, Craig H. Neilsen Foundation (7/10-6/11)
Overall Goal: Determine whether targeted BDNF expression in motor neurons beyond upper lumbar transection sites by injection of AAV1-BDNF into sciatic nerve promotes bridged motor axon reinnervation of target neurons.
Role: PI

4. Regeneration and Bridging of Motor Axons after Spinal Cord Injury, VA Merit Review (10/07-9/10)
Overall Goal: Determine whether combination of cAMP and neurotrophins promotes motor axon bridging after T3 complete transection.
Role: PI

5. Plasticity and Regeneration in the Primate Spinal Cord, NIH grant (2005-2010)
Overall Goal: Determine mechanisms underlying spontaneous recovery after acute C5-6 hemisection lesions and whether BDNF delivery into and below a C5-6 hemisection lesions plus cAMP augmentation will promote axonal sprouting or regeneration, and functional recovery in the primate.
Role: Co-investigator.

6. Axonal Regeneration in the Chronically Injured Spinal Cord, VA Merit Review grant (9/04 – 9/07)
Overall Goal: To determine whether chronically injured axons respond to growth factor delivery, extend through regions of inhibitory scar tissue and reconnect to denervated targets, resulting in enhanced functional outcomes following chronic spinal cord injury.
Role: PI

7. Neurogenesis after Primate Spinal Cord Injury, NIH Supplement (9/02 – 9/04)
Overall Goal: To determine whether the extent of natural cell division and replacement from 7 weeks to 7 months after cervical spinal cord injury in adult rhesus monkeys.
Role: Project Leader