

1: Ojovan SM, Rabieh N, Shmoel N, Erez H, Maydan E, Cohen A, Spira ME. A feasibility study of multi-site, intracellular recordings from mammalian neurons by extracellular gold mushroom-shaped microelectrodes. *Sci Rep*. 2015 Sep 14;5:14100. doi: 10.1038/srep14100. PubMed PMID: 26365404; PubMed Central PMCID: PMC4568476.

2: Ojovan SM, McDonald M, Rabieh N, Shmuel N, Erez H, Nesladek M, Spira ME. Nanocrystalline diamond surfaces for adhesion and growth of primary neurons, conflicting results and rational explanation. *Front Neuroeng*. 2014 Jun 11;7:17. doi: 10.3389/fneng.2014.00017. eCollection 2014. Erratum in: *Front Neuroeng*. 2014;7:37. McDonald, Mathew [corrected to McDonald, Matthew]. PubMed PMID: 24966832; PubMed Central PMCID: PMC4052739.

3: Erez H, Shemesh OA, Spira ME. Rescue of tau-induced synaptic transmission pathology by paclitaxel. *Front Cell Neurosci*. 2014 Feb 10;8:34. doi: 10.3389/fncel.2014.00034. eCollection 2014. PubMed PMID: 24574970; PubMed Central PMCID: PMC3918585.

4: Malkinson G, Spira ME. Release properties of individual presynaptic boutons expressed during homosynaptic depression and heterosynaptic facilitation of the *Aplysia* sensorimotor synapse. *Front Cell Neurosci*. 2013 Sep 24;7:165. doi: 10.3389/fncel.2013.00165. eCollection 2013. PubMed PMID: 24068986; PubMed Central PMCID: PMC3781340.

5: Spira ME, Hai A. Multi-electrode array technologies for neuroscience and cardiology. *Nat Nanotechnol*. 2013 Feb;8(2):83-94. doi: 10.1038/nnano.2012.265. Review. PubMed PMID: 23380931.

6: Fendyur A, Spira ME. Toward on-chip, in-cell recordings from cultured cardiomyocytes by arrays of gold mushroom-shaped microelectrodes. *Front Neuroeng.* 2012 Aug 24;5:21. doi: 10.3389/fneng.2012.00021. eCollection 2012. PubMed PMID: 22936913; PubMed Central PMCID: PMC3426852.

7: Hai A, Spira ME. On-chip electroporation, membrane repair dynamics and transient in-cell recordings by arrays of gold mushroom-shaped microelectrodes. *Lab Chip.* 2012 Aug 21;12(16):2865-73. doi: 10.1039/c2lc40091j. Epub 2012 Jun 7. PubMed PMID: 22678065.

8: Bradke F, Fawcett JW, Spira ME. Assembly of a new growth cone after axotomy: the precursor to axon regeneration. *Nat Rev Neurosci.* 2012 Feb 15;13(3):183-93. doi: 10.1038/nrn3176. Review. PubMed PMID: 22334213.

9: Fendyur A, Mazurski N, Shappir J, Spira ME. Formation of Essential Ultrastructural Interface between Cultured Hippocampal Cells and Gold Mushroom-Shaped MEA- Toward "IN-CELL" Recordings from Vertebrate Neurons. *Front Neuroeng.* 2011 Dec 8;4:14. doi: 10.3389/fneng.2011.00014. eCollection 2011. PubMed PMID: 22163219; PubMed Central PMCID: PMC3233721.

10: Khoutorsky A, Heyman A, Shoseyov O, Spira ME. Formation of hydrophilic nanochannels in the membrane of living cells by the ringlike stable protein-SP1. *Nano Lett.* 2011 Jul 13;11(7):2901-4. doi: 10.1021/nl201368w. Epub 2011 Jun 9. PubMed PMID: 21651305.

11: Shemesh OA, Spira ME. Rescue of neurons from undergoing hallmark tau-induced Alzheimer's disease cell pathologies by the antimetabolic drug paclitaxel. *Neurobiol Dis.* 2011 Jul;43(1):163-75. doi: 10.1016/j.nbd.2011.03.008. Epub 2011 Mar 13. PubMed PMID: 21406229.

12: Malkinson G, Spira ME. Clustering of excess growth resources within leading growth cones underlies the recurrent "deposition" of varicosities along developing neurites. *Exp Neurol*. 2010 Sep;225(1):140-53. doi: 10.1016/j.expneurol.2010.06.005. Epub 2010 Jun 15. PubMed PMID: 20558161.

13: Hai A, Shappir J, Spira ME. Long-term, multisite, parallel, in-cell recording and stimulation by an array of extracellular microelectrodes. *J Neurophysiol*. 2010 Jul;104(1):559-68. doi: 10.1152/jn.00265.2010. Epub 2010 Apr 28. Erratum in: *J Neurophysiol*. 2011 Feb;105(2):985. PubMed PMID: 20427620.

14: Shemesh OA, Spira ME. Hallmark cellular pathology of Alzheimer's disease induced by mutant human tau expression in cultured *Aplysia* neurons. *Acta Neuropathol*. 2010 Aug;120(2):209-22. doi: 10.1007/s00401-010-0689-7. Epub 2010 Apr 27. PubMed PMID: 20422200.

15: Hai A, Shappir J, Spira ME. In-cell recordings by extracellular microelectrodes. *Nat Methods*. 2010 Mar;7(3):200-2. doi: 10.1038/nmeth.1420. Epub 2010 Jan 31. PubMed PMID: 20118930.

16: Malkinson G, Spira ME. Imaging and analysis of evoked excitatory-postsynaptic-calcium-transients by individual presynaptic-boutons of cultured *Aplysia* sensorimotor synapse. *Cell Calcium*. 2010 Apr;47(4):315-25. doi: 10.1016/j.ceca.2009.12.015. Epub 2010 Jan 20. PubMed PMID: 20089302.

17: Hai A, Kamber D, Malkinson G, Erez H, Mazurski N, Shappir J, Spira ME. Changing gears from chemical adhesion of cells to flat substrata toward engulfment of micro-protrusions by active mechanisms. *J Neural Eng*. 2009 Dec;6(6):066009. doi: 10.1088/1741-2560/6/6/066009. Epub 2009 Nov 17. PubMed PMID: 19918108.

18: Shemesh OA, Spira ME. Paclitaxel induces axonal microtubules polar reconfiguration and impaired organelle transport: implications for the pathogenesis of paclitaxel-induced polyneuropathy. *Acta Neuropathol.* 2010 Feb;119(2):235-48. doi: 10.1007/s00401-009-0586-0. Epub 2009 Aug 30. PubMed PMID: 19727778.

19: Hai A, Dormann A, Shappir J, Yitzchaik S, Bartic C, Borghs G, Langedijk JP, Spira ME. Spine-shaped gold protrusions improve the adherence and electrical coupling of neurons with the surface of micro-electronic devices. *J R Soc Interface.* 2009 Dec 6;6(41):1153-65. doi: 10.1098/rsif.2009.0087. Epub 2009 May 27. PubMed PMID: 19474080; PubMed Central PMCID: PMC2817159.

20: Kamber D, Erez H, Spira ME. Local calcium-dependent mechanisms determine whether a cut axonal end assembles a retarded endbulb or competent growth cone. *Exp Neurol.* 2009 Sep;219(1):112-25. doi: 10.1016/j.expneurol.2009.05.004. Epub 2009 May 13. PubMed PMID: 19442660.

21: Goykhman I, Korbakov N, Bartic C, Borghs G, Spira ME, Shappir J, Yitzchaik S. Direct detection of molecular biorecognition by dipole sensing mechanism. *J Am Chem Soc.* 2009 Apr 8;131(13):4788-94. doi: 10.1021/ja809051p. PubMed PMID: 19292449.

22: Khoutorsky A, Spira ME. Activity-dependent calpain activation plays a critical role in synaptic facilitation and post-tetanic potentiation. *Learn Mem.* 2009 Jan 29;16(2):129-41. doi: 10.1101/lm.1275709. Print 2009 Feb. PubMed PMID: 19181619.

23: Braeken D, Rand DR, Andrei A, Huys R, Spira ME, Yitzchaik S, Shappir J, Borghs G, Callewaert G, Bartic C. Glutamate sensing with enzyme-modified

floating-gate field effect transistors. *Biosens Bioelectron.* 2009 Apr 15;24(8):2384-9. doi: 10.1016/j.bios.2008.12.012. Epub 2008 Dec 14. PubMed PMID: 19155170.

24: Prager-Khoutorsky M, Spira ME. Neurite retraction and regrowth regulated by membrane retrieval, membrane supply, and actin dynamics. *Brain Res.* 2009 Jan 28;1251:65-79. doi: 10.1016/j.brainres.2008.10.049. Epub 2008 Oct 31. PubMed PMID: 19022228.

25: Khoutorsky A, Spira ME. Calpain inhibitors alter the excitable membrane properties of cultured aplysia neurons. *J Neurophysiol.* 2008 Nov;100(5):2784-93. doi: 10.1152/jn.90487.2008. Epub 2008 Aug 6. PubMed PMID: 18684908.

26: Shemesh OA, Erez H, Ginzburg I, Spira ME. Tau-induced traffic jams reflect organelles accumulation at points of microtubule polar mismatching. *Traffic.* 2008 Apr;9(4):458-71. doi: 10.1111/j.1600-0854.2007.00695.x. Epub 2007 Dec 21. PubMed PMID: 18182010.

27: Erez H, Spira ME. Local self-assembly mechanisms underlie the differential transformation of the proximal and distal cut axonal ends into functional and aberrant growth cones. *J Comp Neurol.* 2008 Mar 1;507(1):1019-30. PubMed PMID: 18092341.

28: Cohen A, Shappir J, Yitzchaik S, Spira ME. Reversible transition of extracellular field potential recordings to intracellular recordings of action potentials generated by neurons grown on transistors. *Biosens Bioelectron.* 2008 Jan 18;23(6):811-9. Epub 2007 Sep 12. PubMed PMID: 17959368.

- 29: Malkinson G, Fridman ZM, Kamber D, Dormann A, Shapira E, Spira ME. Calcium-induced exocytosis from actomyosin-driven, motile varicosities formed by dynamic clusters of organelles. *Brain Cell Biol.* 2006 Feb;35(1):57-73. Epub 2007 Mar 10. PubMed PMID: 17940913.
- 30: Erez H, Malkinson G, Prager-Khoutorsky M, De Zeeuw CI, Hoogenraad CC, Spira ME. Formation of microtubule-based traps controls the sorting and concentration of vesicles to restricted sites of regenerating neurons after axotomy. *J Cell Biol.* 2007 Feb 12;176(4):497-507. Epub 2007 Feb 5. PubMed PMID: 17283182; PubMed Central PMCID: PMC2063984.
- 31: Cohen A, Shappir J, Yitzchaik S, Spira ME. Experimental and theoretical analysis of neuron-transistor hybrid electrical coupling: the relationships between the electro-anatomy of cultured *Aplysia* neurons and the recorded field potentials. *Biosens Bioelectron.* 2006 Dec 15;22(5):656-63. Epub 2006 Mar 29. PubMed PMID: 16574399.
- 32: Hai A, Ben-Haim D, Korbakov N, Cohen A, Shappir J, Oren R, Spira ME, Yitzchaik S. Acetylcholinesterase-ISFET based system for the detection of acetylcholine and acetylcholinesterase inhibitors. *Biosens Bioelectron.* 2006 Dec 15;22(5):605-12. Epub 2006 Mar 10. PubMed PMID: 16529923.
- 33: Sahly I, Khoutorsky A, Erez H, Prager-Khoutorsky M, Spira ME. On-line confocal imaging of the events leading to structural dedifferentiation of an axonal segment into a growth cone after axotomy. *J Comp Neurol.* 2006 Feb 10;494(5):705-20. PubMed PMID: 16374810.
- 34: Malkinson G, Spira ME. Calcium concentration threshold and translocation kinetics of EGFP-DOC2B expressed in cultured *Aplysia* neurons. *Cell Calcium.* 2006

Jan;39(1):85-93. Epub 2005 Nov 21. PubMed PMID: 16305808.

35: Khoutorsky A, Spira ME. Calcium-activated proteases are critical for refilling depleted vesicle stores in cultured sensory-motor synapses of *Aplysia*. *Learn Mem.* 2005 Jul-Aug;12(4):414-22. PubMed PMID: 16077020; PubMed Central PMCID: PMC1183260.

36: Oren R, Sfez R, Korbakov N, Shabtai K, Cohen A, Erez H, Dormann A, Cohen H, Shappir J, Spira ME, Yitzchaik S. Electrically conductive 2D-PAN-containing surfaces as a culturing substrate for neurons. *J Biomater Sci Polym Ed.* 2004;15(11):1355-74. PubMed PMID: 15648568.

37: Cohen A, Spira ME, Yitshaik S, Borghs G, Shwartzglass O, Shappir J. Depletion type floating gate p-channel MOS transistor for recording action potentials generated by cultured neurons. *Biosens Bioelectron.* 2004 Jul 15;19(12):1703-9. PubMed PMID: 15142605.

38: Sahly I, Erez H, Khoutorsky A, Shapira E, Spira ME. Effective expression of the green fluorescent fusion proteins in cultured *Aplysia* neurons. *J Neurosci Methods.* 2003 Jun 30;126(2):111-7. PubMed PMID: 12814835.

39: Spira ME, Oren R, Dormann A, Gitler D. Critical calpain-dependent ultrastructural alterations underlie the transformation of an axonal segment into a growth cone after axotomy of cultured *Aplysia* neurons. *J Comp Neurol.* 2003 Mar 10;457(3):293-312. PubMed PMID: 12541311.

40: Gitler D, Spira ME. Short window of opportunity for calpain induced growth cone formation after axotomy of *Aplysia* neurons. *J Neurobiol.* 2002 Sep 15;52(4):267-79. PubMed PMID: 12210094.

41: Spira ME, Oren R, Dormann A, Ilouz N, Lev S. Calcium, protease activation, and cytoskeleton remodeling underlie growth cone formation and neuronal regeneration. *Cell Mol Neurobiol.* 2001 Dec;21(6):591-604. Review. PubMed PMID: 12043835.

42: Ravin R, Parnas H, Spira ME, Parnas I. Partial uncoupling of neurotransmitter release from $[Ca^{2+}]_i$ by membrane hyperpolarization. *J Neurophysiol.* 1999 Jun;81(6):3044-53. PubMed PMID: 10368419.

43: Ravin R, Parnas H, Spira ME, Volfovsky N, Parnas I. Simultaneous measurement of evoked release and $[Ca^{2+}]_i$ in a crayfish release bouton reveals high affinity of release to Ca^{2+} . *J Neurophysiol.* 1999 Feb;81(2):634-42. PubMed PMID: 10036266.

44: Gitler D, Spira ME. Real time imaging of calcium-induced localized proteolytic activity after axotomy and its relation to growth cone formation. *Neuron.* 1998 Jun;20(6):1123-35. PubMed PMID: 9655501.

45: Ziv NE, Spira ME. Induction of growth cone formation by transient and localized increases of intracellular proteolytic activity. *J Cell Biol.* 1998 Jan 12;140(1):223-32. PubMed PMID: 9425169; PubMed Central PMCID: PMC2132593.

46: Ravin R, Spira ME, Parnas H, Parnas I. Simultaneous measurement of intracellular Ca^{2+} and asynchronous transmitter release from the same crayfish bouton. *J Physiol.* 1997 Jun 1;501 (Pt 2):251-62. PubMed PMID: 9192298; PubMed Central PMCID: PMC1159474.

47: Ziv NE, Spira ME. Localized and transient elevations of intracellular Ca^{2+} induce the dedifferentiation of axonal segments into growth cones. *J Neurosci.* 1997 May 15;17(10):3568-79. PubMed PMID: 9133380.

48: Gabso M, Neher E, Spira ME. Low mobility of the Ca²⁺ buffers in axons of cultured Aplysia neurons. *Neuron*. 1997 Mar;18(3):473-81. PubMed PMID: 9115740.

49: Spira ME, Dormann A, Ashery U, Gabso M, Gitler D, Benbassat D, Oren R, Ziv NE. Use of Aplysia neurons for the study of cellular alterations and the resealing of transected axons in vitro. *J Neurosci Methods*. 1996 Oct 21;69(1):91-102. PubMed PMID: 8912939.

50: Ashery U, Penner R, Spira ME. Acceleration of membrane recycling by axotomy of cultured aplysia neurons. *Neuron*. 1996 Mar;16(3):641-51. PubMed PMID: 8785061.

51: Ziv NE, Spira ME. Axotomy induces a transient and localized elevation of the free intracellular calcium concentration to the millimolar range. *J Neurophysiol*. 1995 Dec;74(6):2625-37. PubMed PMID: 8747220.

52: McIntosh JM, Hasson A, Spira ME, Gray WR, Li W, Marsh M, Hillyard DR, Olivera BM. A new family of conotoxins that blocks voltage-gated sodium channels. *J Biol Chem*. 1995 Jul 14;270(28):16796-802. PubMed PMID: 7622492.

53: Hasson A, Shon KJ, Olivera BM, Spira ME. Alterations of voltage-activated sodium current by a novel conotoxin from the venom of *Conus gloriamaris*. *J Neurophysiol*. 1995 Mar;73(3):1295-301. PubMed PMID: 7608772.

54: Benbassat D, Spira ME. The survival of transected axonal segments of cultured Aplysia neurons is prolonged by contact with intact nerve cells. *Eur J Neurosci*. 1994 Oct 1;6(10):1605-14. PubMed PMID: 7850024.

55: Shon KJ, Hasson A, Spira ME, Cruz LJ, Gray WR, Olivera BM. Delta-conotoxin GmVIA, a novel peptide from the venom of *Conus gloriamaris*. *Biochemistry*. 1994

Sep 27;33(38):11420-5. PubMed PMID: 7918355.

56: Fainzilber M, Hasson A, Oren R, Burlingame AL, Gordon D, Spira ME, Zlotkin E. New mollusc-specific alpha-conotoxins block Aplysia neuronal acetylcholine receptors. *Biochemistry*. 1994 Aug 16;33(32):9523-9. PubMed PMID: 8068627.

57: Spira ME, Hasson A, Fainzilber M, Gordon D, Zlotkin E. Chemical and electrophysiological characterization of new peptide neurotoxins from the venom of the molluscivorous snail *Conus textile neovicarius*: a review. *Isr J Med Sci*. 1993 Sep;29(9):530-43. Review. PubMed PMID: 8225942.

58: Benbassat D, Spira ME. Survival of isolated axonal segments in culture: morphological, ultrastructural, and physiological analysis. *Exp Neurol*. 1993 Aug;122(2):295-310. PubMed PMID: 8405266.

59: Ziv NE, Spira ME. Spatiotemporal distribution of Ca²⁺ following axotomy and throughout the recovery process of cultured Aplysia neurons. *Eur J Neurosci*. 1993 Jun 1;5(6):657-68. PubMed PMID: 8261139.

60: Spira ME, Benbassat D, Dormann A. Resealing of the proximal and distal cut ends of transected axons: electrophysiological and ultrastructural analysis. *J Neurobiol*. 1993 Mar;24(3):300-16. PubMed PMID: 8492108.

61: Hasson A, Fainzilber M, Gordon D, Zlotkin E, Spira ME. Alteration of sodium currents by new peptide toxins from the venom of a molluscivorous *Conus* snail. *Eur J Neurosci*. 1993 Jan 1;5(1):56-64. PubMed PMID: 8261090.

62: Ashery U, Weiss C, Sela D, Spira ME, Atlas D. Membrane depolarization combined with release of calcium from internal stores does not trigger secretion

from PC 12 cells. *Receptors Channels*. 1993;1(3):217-20. PubMed PMID: 7922021.

63: Fainzilber M, Gordon D, Hasson A, Spira ME, Zlotkin E. Mollusc-specific toxins from the venom of *Conus textile neovicarius*. *Eur J Biochem*. 1991 Dec 5;202(2):589-95. PubMed PMID: 1761058.

64: Blumenfeld H, Spira ME, Kandel ER, Siegelbaum SA. Facilitatory and inhibitory transmitters modulate calcium influx during action potentials in aplysia sensory neurons. *Neuron*. 1990 Oct;5(4):487-99. PubMed PMID: 1976321.

65: Spira ME, Dormann A, Zeldes D. Neuronal architecture, receptor and Ca²⁺ channel distribution in regenerating giant interneurons. *J Basic Clin Physiol Pharmacol*. 1990 Jan-Dec;1(1-4):125-40. Review. PubMed PMID: 1964801.

66: Parnas H, Flashner M, Spira ME. Sequential model to describe the nicotinic synaptic current. *Biophys J*. 1989 May;55(5):875-84. PubMed PMID: 2720078; PubMed Central PMCID: PMC1330524.

67: Spira ME, Zeldes D, Hochner B, Dormann A. The effects of microenvironment on the redifferentiation of regenerating neurones: neurite architecture, acetylcholine receptors and Ca²⁺ channel distribution. *J Exp Biol*. 1987 Sep;132:111-31. PubMed PMID: 2448413.

68: Hochner B, Spira ME. Preservation of motoneuron electrotonic characteristics during postembryonic growth. *J Neurosci*. 1987 Jan;7(1):261-70. PubMed PMID: 3806197.

69: Spira ME, Zeldes D, Krasner E. Specific and efficient synaptic interactions mediated by potassium ions. *Isr J Med Sci*. 1987 Jan-Feb;23(1-2):115-23. PubMed

PMID: 3570741.

70: Hochner B, Spira ME. Two distinct propagating regenerative potentials in a single ethanol-treated axon. *Brain Res.* 1986 Nov 19;398(1):164-8. PubMed PMID: 3801888.

71: Spira ME, Yarom Y, Zeldes D. Neuronal interactions mediated by neurally evoked changes in the extracellular potassium concentration. *J Exp Biol.* 1984 Sep;112:179-97. Review. PubMed PMID: 6392467.

72: Yarom Y, Spira ME. Morphological and electrophysiological properties of giant interneurons during the postembryonic development of the cockroach CNS. *Brain Res.* 1983 Jun;284(2-3):321-34. PubMed PMID: 6307489.

73: Spira ME, Yarom Y. Functional elimination of afferent pathways and decreased safety factor during postembryonic development of cockroach giant interneurons. *Brain Res.* 1983 Jun;284(2-3):311-20. PubMed PMID: 6307488.

74: Meiri H, Dormann A, Spira ME. Comparison of ultrastructural changes in proximal and distal segments of transected giant fibers of the cockroach *Periplaneta americana*. *Brain Res.* 1983 Mar 14;263(1):1-14. PubMed PMID: 6839162.

75: Nitkin RM, Wallace BG, Spira ME, Godfrey EW, McMahan UJ. Molecular components of the synaptic basal lamina that direct differentiation of regenerating neuromuscular junctions. *Cold Spring Harb Symp Quant Biol.* 1983;48 Pt 2:653-65. PubMed PMID: 6586382.

76: Yarom Y, Grossman Y, Gutnick MJ, Spira ME. Transient extracellular potassium accumulation produced prolonged depolarizations during synchronized bursts in

picrotoxin-treated cockroach CNS. *J Neurophysiol.* 1982 Nov;48(5):1089-97. PubMed PMID: 7175559.

77: Yarom Y, Spira ME. Extracellular potassium ions mediate specific neuronal interaction. *Science.* 1982 Apr 2;216(4541):80-2. PubMed PMID: 6278595.

78: Spira ME, Yarom Y. Physiological synaptic interactions mediated by potassium ions. *J Physiol (Paris).* 1982-1983;78(8):689-94. PubMed PMID: 7187442.

79: Meiri H, Spira ME, Parnas I. Membrane conductance and action potential of a regenerating axonal tip. *Science.* 1981 Feb 13;211(4483):709-12. PubMed PMID: 7455707.

80: Giaume C, Spira ME, Korn H. Diamide, a thiol oxidizing agent, uncouples the electrotonic junctions of crayfish septate axons, but not those of Navanax motoneurons. *Neuroscience.* 1981;6(11):2239-47. PubMed PMID: 6276811.

81: Spira ME, Spray DC, Bennett MV. Synaptic organization of expansion motoneurons of Navanax inermis. *Brain Res.* 1980 Aug 18;195(2):241-69. PubMed PMID: 6249442.

82: Ne'eman Z, Spira ME, Bennett MV. Formation of gap and tight junctions between reaggregated blastomeres of the killifish, *Fundulus*. *Am J Anat.* 1980 Jul;158(3):251-62. PubMed PMID: 7446433.

83: Giaume C, Spira ME, Korn H. Uncoupling of invertebrate electrotonic synapses by carbon dioxide. *Neurosci Lett.* 1980 Apr;17(1-2):197-202. PubMed PMID: 6302579.

84: Spray DC, Spira ME, Bennett MV. Peripheral fields and branching patterns of buccal mechanosensory neurons in the opisthobranch mollusc, *Navanax inermis*. *Brain Res.* 1980 Jan 27;182(2):253-70. PubMed PMID: 7357387.

85: Spray DC, Spira ME, Bennett MV. Synaptic connections of buccal mechanosensory neurons in the opisthobranch mollusc, *Navanax inermis*. *Brain Res.* 1980 Jan 27;182(2):271-86. PubMed PMID: 6244041.

86: Grossman Y, Parnas I, Spira ME. Mechanisms involved in differential conduction of potentials at high frequency in a branching axon. *J Physiol.* 1979 Oct;295:307-22. PubMed PMID: 521940; PubMed Central PMCID: PMC1279047.

87: Grossman Y, Parnas I, Spira ME. Differential conduction block in branches of a bifurcating axon. *J Physiol.* 1979 Oct;295:283-305. PubMed PMID: 521937; PubMed Central PMCID: PMC1279046.

88: Bennett MV, Spira ME, Spray DC. Permeability of gap junctions between embryonic cells of *Fundulus*: a reevaluation. *Dev Biol.* 1978 Jul;65(1):114-25. PubMed PMID: 680351.

89: Spira ME, Spray DC, Bennett MV. Electrotonic coupling: effective sign reversal by inhibitory neurons. *Science.* 1976 Dec 3;194(4269):1065-7. PubMed PMID: 185698.

90: Castel M, Spira ME, Parnas I, Yarom Y. Ultrastructure of region of a low safety factor in inhomogeneous giant axon of the cockroach. *J Neurophysiol.* 1976 Jul;39(4):900-08. PubMed PMID: 966044.

- 91: Spira ME, Yarom Y, Parnas I. Modulation of spike frequency by regions of special axonal geometry and by synaptic inputs. *J Neurophysiol.* 1976 Jul;39(4):882-99. PubMed PMID: 966043.
- 92: Hochner B, Spira ME, Werman R. Penicillin decreases chloride conductance in crustacean muscle: a model for the epileptic neuron. *Brain Res.* 1976 Apr 30;107(1):85-103. PubMed PMID: 178406.
- 93: Spira ME, Klein M, Hochner B, Yarom Y, Castel M. Ultrastructural changes accompanying the disturbances of neuromuscular transmission caused by Pardachirus toxin. *Neuroscience.* 1976;1(2):117-24. PubMed PMID: 187983.
- 94: Grossman Y, Spira ME, Parnas I. Differential flow of information into branches of a single axon. *Brain Res.* 1973 Dec 21;64:379-86. PubMed PMID: 4781348.
- 95: Bennett MV, Spira ME, Pappas GD. Properties of electrotonic junctions between embryonic cells of *Fundulus*. *Dev Biol.* 1972 Dec;29(4):419-35. PubMed PMID: 4120602.
- 96: Model PG, Spira ME, Bennett MV. Synaptic inputs to the cell bodies of the giant fibers of the hatchetfish. *Brain Res.* 1972 Oct 13;45(1):288-95. PubMed PMID: 4342403.
- 97: Spira ME, Bennett MV. Penicillin induced seizure activity in the hatchet fish. *Brain Res.* 1972 Aug 11;43(1):235-41. PubMed PMID: 4403198.
- 98: Spira ME, Bennett MV. Synaptic control of electrotonic coupling between neurons. *Brain Res.* 1972 Feb 25;37(2):294-300. PubMed PMID: 4334355.

99: Parnas I, Spira ME, Werman R, Bergmann F. Non-homogeneous conduction in giant axons of the nerve cord of *Periplaneta americana*. *J Exp Biol.* 1969 Jun;50(3):635-49. PubMed PMID: 5793880.

100: Spira ME, Parnas I, Bergmann F. Histological and electrophysiological studies on the giant axons of the cockroach *Periplaneta americana*. *J Exp Biol.* 1969 Jun;50(3):629-34. PubMed PMID: 5793879.

101: Spira ME, Parnas I, Bergmann F. Organization of the giant axons of the cockroach *Periplaneta americana*. *J Exp Biol.* 1969 Jun;50(3):615-27. PubMed PMID: 5793878.

102: SPIRA ME. [Phenolsulfonphthalein test of oviduct patency]. *Lek Obz.* 1954;3(7-8):435-6. Czech. PubMed PMID: 13222918.