

CURRICULUM VITAE
ALLAN D. LEVI, MD, PhD, FRCS(C), FACS

1. Date: December 11, 2009

PERSONAL

2. Name: Allan D. Levi

3. Office: (305) 243-2088
Research: (305) 243-4695
Pager: (305) 483-7850

4. Office Address: Department of Neurological Surgery
University of Miami/Miller School of Medicine
Lois Pope LIFE Center
1095 NW 14 th Terrace – 2nd Floor
Miami, FL 33136

5. Current Academic Rank: Professor - tenured

6. Primary Department: Neurosurgery

7. Secondary Appointments: Orthopedics/Rehabilitation

8. Citizenship: U.S.A.
Canada

9. Languages: English, French and Italian

HIGHER EDUCATION

10. Institutional:

June 1980 Marianopolis College, Canada - **D.E.C.**
(Health Sciences)

June 1982 University of Ottawa, Canada - **B.Sc.** (Biology)

June 1986 University of Ottawa, Canada - **B.Med.Sc.**
(Medical Research)

13. Academic:

07/86-06/87	Comprehensive Surgery Internship University of Toronto
07/87-06/91	Resident Division of Neurosurgery University of Toronto
07/91-06/94	Doctoral Candidate (Ph.D), Neuroscience Program, University of Miami.
07/94-09/95	Resident/Fellow Division of Neurosurgery University of Toronto
10/95-12/96	Spine Fellow Division of Neurosurgery Barrow Neurological Institute St. Joseph's Hospital and Medical Center Phoenix, Arizona
01/97-01/02	Assistant Professor Neurosurgery, Orthopedics and Rehabilitation and The Miami Project to Cure Paralysis Miami, Florida
01/02-02/07	Associate Professor Neurosurgery, Orthopedics and Rehabilitation and The Miami Project to Cure Paralysis Miami, Florida
03/98 - present	Director of Neurosurgical Spine Fellowship Program Co-Director of the Acute Spinal Cord Injury Unit at Jackson Memorial Hospital
07/99 - present	Chief of Neurospinal Services – JMH
02/07 – present	Professor - tenured Neurosurgery, Orthopedics and Rehabilitation and The Miami Project to Cure Paralysis Miami, Florida
11/07 - present	Chief of Neurosurgery University of Miami Hospital

14. Non-academic: None

PUBLICATIONS

Books and monographs published:

1. Farhadi, HF, Levi AD: Peripheral nerve grafts and the repair of axonal circuits following spinal cord injury. In **Essentials of Spinal Cord Injury.1st Edition**. Eds: Fehlings M, Boakye M, Vaccaro A, Rossignol S, Ditunno J, Burns ?. Thieme Medical Publisher, Inc, In press 2010.
2. Benglis D, Levi AD, Wang MY: Hypothermia – Evidence based review. In **Essentials of Spinal Cord Injury.1st Edition**. Eds: Fehlings M, Boakye M, Vaccaro A, Rossignol S, Ditunno J, Burns ?. Thieme Medical Publisher, Inc, In press 2010.
3. Farhadi, HF, Levi AD: Spinal cord injury: Principles of non-operative management. In **The Cervical Spine – 5th edition..** Eds: Benzel EC. Publisher, Inc, In press 2010.
4. Woodrow S, Vitarbo EA, **Levi AD**: Cervical laminoplasty – open door. In **Spine Surgery Techniques, Complication Avoidance, and Management – 3rd edition**. (ed. Benzel EC) Harcourt Health Science, Chapter 2010.
5. Wang MY, Levi AD: Minimally invasive cervical fusion. In **Cervical Spine Surgery: Current trends and challenges**, 1st Edition Eds: Mummanemi P, Kanter A, Wang M, Haid R. Quality Medical Publishing Inc, St. Louis, MO. Chapter 28. In press – 2009.
6. Wang MY, Levi AD: Minimally invasive surgery to treat cervical spine trauma. In **Cervical Spine Surgery: Current trends and challenges**, 1st Edition Eds: Mummanemi P, Kanter A, Wang M, Haid R. Quality Medical Publishing Inc, St. Louis, MO. Chapter 32 In press – 2009.
7. Benglis D, **Levi AD**: Robotics, FES, brain-computer interfaces, locomotor training strategies. In **Management of spine and spinal cord trauma: an evidence based analysis**. (eds. Vaccaro AR, Fehlings MG, Dvorak M) Thieme medical publishers, Inc. In press, Chapter 55, 2009
8. Hoh DJ, Levi AD, Wang MY: Ossification of the Posterior Longitudinal Ligament and Other Enthesopathies. In **Youman’s Textbook of Neurological Surgery**, 6th Edition Eds: Winn HR, Shaffrey C, Vollmer DG, Sonntag VKH, Elsevier, Inc., Philadelphia, Pennsylvania. In press – 2008.
9. Sheth RN, Manzano G, **Levi AD**: Post-Traumatic Syringomyelia. In **Cervical Spine Trauma** (eds. Vaccaro, Anderson (co-ed)) Lippincott Williams & Wilkins. Chapter 38 pp 551-558, 2009.
10. Brindle TI, Martinez A, **Levi AD**, Green BA, Experimental Spinal Cord Injury. In: **Spine Trauma**, AM (eds. Levine, FJ Eismont, SR Garfin, JE Zigler) WB Saunders Company, Philadelphia, PA, Chapter 11 (In press) 2008

11. Manzano G, Sheth RN, **Levi AD**: The Management of Post-Traumatic Syringomyelia. In **Atlas of Spine Trauma: Adult and Pediatric**. (eds. Kim, Ludwig, Vaccaro (co-eds) Elsevier. Chapter 62 (In press) 2008.
12. Bhatia S, **Levi AD**: Corpectomy and Anterior Lateral Thoracic and Lumbar Screw Plate Fixation. In **Spinal Cord and Spinal Column Tumors**, (eds. Dickman CA, Fehlings MG, Gokaslan ZL) Thieme, Chapter 36, pp 549-558. 2006
13. Javahary R, Debayle M, **Levi AD**: Spinal Intradural Infections. In **The Spine – 5th edition**. (ed. Eismont) Elsevier Science, Chapter 81, pp 1368-1381. 2006.
14. Vitarbo EA, **Levi AD**: Spinal Cord Injury. In **Textbook of Critical Care, – 5th edition**. (eds. Fink MP, Abraham E, Kochanek PM and Vincent JL) Elsevier Science, 2004, Chapter 56, pp 391-397. 2005.
15. Vitarbo EA, **Levi ADO**: Cervical laminoplasty – open door. In **Spine Surgery Techniques, Complication Avoidance, and Management – 2nd edition**. (ed. Benzel EC) Harcourt Health Science, Chapter 166, pp 2103-2112. 2005.
16. **Levi ADO**: Approach to the Patient with Spine Trauma. In **Youmans Neurological Surgery, 5th edition**, (ed. Winn HR) WB Saunders Co., Chapter 313, pp. 4869-4884. 2003.
17. Vitarbo L, **Levi ADO**: Cervical laminectomy and laminoplasty. In **Textbook of Neurological Surgery**. (eds. Bajter H, Loftus C) Lippincott Williams & Wilkins, Chapter 197, pp 2066-2073. 2002.
18. Jimenez OF, **Levi ADO**: Acute Injury to the Spinal Cord. In **Manual of Trauma and Emergency Surgery**, (eds. Shatz DV, Kirton OC, Mckenney MG, Civetta JM) WB Saunders Co., Chapter 9, pp. 103-118. 1999.
19. **Levi ADO**: Neurological Syndromes of the Craniovertebral Junction. In **Surgery of the Craniovertebral Junction**, Dickman CA, Sonntag VKH and Spetzler RF, (eds.) Thieme Medical Publishers, New York, Chapter 5, pp. 103-120. 1998.
20. **Levi ADO**, Sonntag VKH: Neurosurgical Procedures in Spine Trauma. In **Comprehensive Management of Spine Trauma**, Capen DA, Haye W(eds.) Mosby-yearbook, St. Louis, Chapter 22, pp. 331-344. 1998.
21. **Levi ADO**, Sonntag VKH: Pyogenic Vertebral Osteomyelitis. In **Infections of the Central Nervous System**, Osenbach RK, Zeidmann SM (eds.) Lippincott Raven Press, Philadelphia, Chapter 21. pp. 255-261. 1998.
22. **Levi ADO**: Studies on the storage and proliferation of cultured human Schwann cells with observations on their capacity to myelinate regenerating rodent axons in vivo. UMI Dissertation Services, Ann Arbor. 1994.

Juried or refereed journal articles (published):

1. **Levi AD**, Casella G, Green BA, Dietrich WD, Vanni S, Jagid J, Wang MW: Clinical outcomes using modest intravascular hypothermia after acute cervical spinal cord injury. *Neurosurgery* – In press, 2009.
2. Bonfield CM, **Levi AD**, Arnold PM, Okonkwo DO. Surgical management of posttraumatic syringomyelia after spinal cord injury. *Spine* – In press - 2009
3. **Levi AD**, Ross AL, Cuartas JE, Qadir R, Temple T: Surgical management of symptomatic peripheral nerve sheath tumors. *Neurosurgery* – In press.
4. Kuluz J, Samdani A, Benglis D, Gonzalez-Brito M, Solano J, Ramirez M, Luqman A, De Los Santos R, Hutchinson D, Nares M, Padgett K, He D, Huang T, **Levi AD**, Betz R, Dietrich WD: New large animal model of pediatric spinal cord injury. *J Spinal Cord Med* – In press - 2009
5. Levene H, Nimmigada A, **Levi AD**: An unusual case of foot drop. Anterior lumbar disc herniation mimicking a nerve sheath tumor. *Neurosurgery* – In press, 2010.
6. Benglis DM, Vanni S, **Levi AD**: An anatomical study of the lumbosacral plexus as related to the minimally invasive transpsoas approach to the lumbar spine. *J Neurosurgery: Spine* 10:139-144, 2009
7. Benglis D, **Levi AD**: Neurological findings of craniovertebral junction diseases. *Surgery of the Craniovertebral Junction. Neurosurgery* - In press, 2009
8. Bono M, Schoenfeld A, Rampersaud R, Levi AD, Grauer J, Arnold P, Fehlings MG, Dvorak M, Vaccaro AR: The reproducibility of radiographic measurements for subaxial cervical spine trauma, *Spine J* – In press - 2009
9. Hood B, Levene HB, **Levi AD**: Transplantation of Autologous Schwann cells for the repair of segmental peripheral nerve defects. *Neurosurgery Focus* – 26(2):E4, 2009
10. **Levi AD**, Green BA, Wang MY, Dietrich D, Brindle T, Vanni S, Casella G, El Hammady G Jagid J: The clinical application of modest hypothermia in the treatment of acute spinal cord injury. *J Neurotrauma* – 26(3):407-415, 2009.
11. Calancie B, Madsen PW, Wood P, Marcillo AE, **Levi AD**, Guenard V, Bunge RP: Use of a guidance channel seeded with autologous Schwann cells for repair of cauda equina injuries in the primate. *Journal Spinal Cord Med.* 32:379-388, 2009.
12. Bathen M, Smith JS, **Levi AD**, Stewart O, Gupta R: Advances in the Management of Acute Spinal Cord Injury. *Journal of the American Academy of Orthopaedic Surgery.* In press - 2009.
13. Raffa S, Benglis D, **Levi AD**: Treatment of a persistent iatrogenic cerebrospinal fluid-pleural fistula with a cadaveric dural – pleural graft. *Spine Journal* 9(4): 25-29, 2009.

14. Manzano GR, Green BA, **Levi AD**: Contemporary management of adult intramedullary spinal tumors – pathology and neurological outcomes related to surgical resection. *Spinal Cord* 46:540-546, 2008.
15. Benglis DM, Elhammady MSA, **Levi AD**, Vanni S: Minimally invasive anterolateral approaches for the treatment of back pain and adult degenerative deformity. *Neurosurgery* A191-A196, 2008
16. Benglis D, Wang MY, **Levi AD**: A comprehensive review of the safety profile of bone morphogenetic protein in spine surgery. *Neurosurgery Supplement* 62:S423-431, 2008
17. Sheth RN, Manzano G, Li X, **Levi AD**: Transplantation of human bone marrow stromal cells into the contused spinal cord of the nude rat. *Journal of Neurosurgery – Spine*: 8:153-162, 2008.
18. Jea A, Rishi S, Vanni S, Green BA, **Levi AD**: Modification of Wright’s Technique for Placement of Bilateral Crossing C-2 Translaminar Screws. *Spine Journal*. 8(4):153-162, 2008.
19. Elhammady M, Manzano GR, Lebowhl N, **Levi AD**: Leiomyosarcoma metastases to the spine. Case series and review of the literature. *J of Neurosurgery – Spine* 178-183, 2007.
20. Cortez, **Levi AD**: Spinal Cord Injury. In **Current Treatment Options in Neurology** (ed. Weiner W, ed.) Current Science Inc 9:115-125, 2007
21. Vitarbo E, Rishi S, **Levi AD**: Open door expansile cervical laminoplasty. *Neurosurgery*. 60: S154-S159. 2007.
22. Nandoe RDS, Hurtado A, **Levi AD**, Grotenhuis A, Oudega M: Bone marrow stromal cells for the repair of the injured spinal cord. *Cell Transplantation*. 15:563-577, 2006.
23. Prusmack, C, Rochman AS, **Levi AD**: The Effect of Age on Survival following Traumatic Spinal Cord Injury. *Topics in Spinal Cord Injury Rehabilitation*. 12(1): 49-57. 2006.
24. Wang MY, **Levi AD**: Minimally Invasive Lateral Mass Screw Fixation in the Cervical Spine: Initial Clinical Experience with Long-Term Follow-up – *Neurosurgery*. 58:907-912. 2006.
25. Tatsui C, Martinez G, Li X, Germain S, Pattany P, **Levi AD**: Evaluation of DuraGen™ in preventing peridural fibrosis in the rabbit. *Journal of Neurosurgery – Spine* 4:51-59. 2006.
26. Jea A, Tatsui C, Farhat H, Vanni S, **Levi AD**: Vertically unstable Type III odontoid Fractures: Case Report. *Neurosurgery* 58:797-798. 2006.
27. Grijalva I, Li X, Marcillo A, Salzer J, **Levi AD**: Expression of neurotrimin in the normal and injured human spinal cord. *Spinal cord* 44(5): 280-286. 2006.

28. **Levi AD**, Hurlbert RJ, Anderson P, Fehlings M, Rampersaud R, Massicotte EM, France JC, Le Huec JC, Hedlund R, Arnold P: Neurological deterioration secondary to unrecognized spinal instability following trauma - a Multi-center study. *Spine* 31:451-458. 2006.
29. Navarro R, Javahery R, Eismont F, Arnold DJ, Bhatia NN, Vanni S, **Levi AD**: The use of sternocleidomastoid muscle flap for esophageal fistula repair in anterior cervical spine surgery. *Spine* 30:617-22. 2005.
30. Vitarbo E, Sultan A, Wang D, Morcos J, **Levi AD**: Split cord malformation with associated Type IV spinal cord arteriovenous fistula: A Case Report. *J Neurosurgery - Spine* 3:400-404. 2005.
31. Landy H, Feun L, Markoe A, Patchen S, Bruce J, Marcus J, **Levi AD**: Extended remission of recurrent malignant peripheral nerve sheath tumor after multimodality treatment. Case Report. *J Neurosurgery* 103:760-763. 2005.
32. Al-Ghatany M, Mubarak A, **Levi ADO**, Midha R: Role of Apoptosis in Sub-acute Posttraumatic Ascending Myelopathy. *J Neurosurgery: Spine* 2:619-623. 2005.
33. Uribe JS, Green BA, Vanni S, Moza K, Guest J, **Levi ADO**: Acute traumatic central cord – syndrome – experience using surgical decompression with open door expansile cervical laminoplasty. *Surgical Neurology* 63:505-510. 2005.
34. Jea A, Moza, K, **Levi AD**, Vanni S: Spontaneous Spinal Epidural Hematoma during Pregnancy: Case Report and Literature Review. *Neurosurgery* 56:1156. 2005.
35. Rochman AS, Vitarbo E, **Levi AD**: Femoral Nerve Palsy Secondary to Traumatic Pseudoaneurysm and Iliacus Hematoma. *J Neurosurg* 102:382-385. 2005.
36. Haq I, Cruz-Almeida Y, Siqueira EB, Norenberg M, Green BA, **Levi AD**: Post-Operative Fibrosis after Surgical Treatment of the Porcine Spinal Cord. *J Neurosurg-Spine* 2:50-54. 2005.
37. Qian T, Guo X, **Levi AD**, Vanni S, Shebert RT, Sipski ML. High-dose methylprednisolone may cause myopathy in acute spinal cord injury patients. *Spinal Cord* 42: 199-203, 2005.
38. Banovac K, Williams JM, Patrick LD, **Levi AD**: Prevention of heterotopic ossification after spinal cord injury with COX-2 selective inhibitor (rofecoxib): *Spinal Cord* 42: 707 – 710, 2004.
39. Shalayev SG, Mun IK, Mallek GS, Palmer S, **Levi AD**, Lasner TM, Kantrowitz AB: Retrospective analysis and modifications of retractor systems for anterior odontoid screw fixation. *Neurosurgical Focus*; 16(1): Article 14. 2004.
40. Wang M, Green BA, Vitarbo E, **Levi ADO**: Adjacent segment disease: an uncommon complication after expansile cervical laminoplasty: case report. *Neurosurgery* 53: 770-774. 2003.

41. Li X, Dancausse H, Grijalva I, Oliviera M, **Levi ADO**: Labeling Schwann cells with CFSE - an *in vitro* and *in vivo* study. *Journal of Neuroscience Methods*; 125:83-91. 2003.
42. Wang MY, **Levi ADO**, Green BA: Intradural spinal arachnoid cysts in adults. *Surgical Neurology* 60:49-55. 2003.
43. Wang MY, Green BA, Shah S, Vanni S, **Levi ADO**. Complications associated with lumbar stenosis surgery in patients older than 75 years of age: *Neurosurgical Focus*; 14(2): Article 7 pp 1-4. 2003.
44. Wang M, Prusmack C, Green BA, **Levi ADO**. Minimally invasive lateral mass screws in the treatment of cervical facet dislocations: Technical note. *Neurosurgery* 52:444-448. 2003.
45. Wang MY, Green, BA, Coscarella E, Baskaya MK, **Levi ADO**, Guest JD: Minimally invasive cervical expansile laminoplasty: An initial cadaveric study. *Neurosurgery* 52:370-373. 2003.
46. Uribe JS, Moza K, Jimenez O, Green BA, **Levi ADO**: Delayed Post-operative Spinal Epidural Hematomas. *Journal of Spine* 3:125-129. 2003.
47. Javahary R, Vanni S, **Levi ADO**: Chiari I malformations and syringomyelia. *Seminars in Neurosurg* 13:2:119-130. 2002.
48. **Levi ADO**, Dancausse H, Li X, Duncan S, Horkey L, Oliviera M: Peripheral nerve grafts promoting central nervous system regeneration after spinal cord injury in the primate. *J Neurosurg – (Spine 2)* 96:195-203. 2002.
49. Wang MY, **Levi ADO**, Shah S, Green BA: Polylactic acid mesh reconstruction of the anterior iliac crest after bone harvesting reduces early postoperative pain after anterior cervical fusion surgery. *Neurosurgery*. 51: 413-416. 2002.
50. Wang MY, **Levi ADO**: Ganglionectomy of C2 for the treatment of medically refractory occipital neuralgia. *Neurosurgical focus*. 12:1 January. 2002.
51. Karahalios, DG, Theodore N, **Levi ADO**, Coons SW, McDougall CG, Sonntag VKH: Vertebral hemangioma with unexpected juxtaposed plasma cell neoplasm treated with intralesional ethanol as a pre-operative adjunct: case report. *BNI Quarterly* 18(4):11-17. 2002.
52. Li X, Ouedega M, Dancausse H, **Levi ADO**: The effect of methylprednisolone on Caspase-3 activation after rat spinal cord transection. *Restorative Neurology and Neuroscience*. 17:203-209. 2001.
53. Brown M, **Levi ADO**: Surgery for lumbar disc herniation during pregnancy. *Spine*. 26:440-443. 2001.
54. Duncan STK, **Levi ADO**: Multi-tiered treatment of pressure sores in two cynomolgous macaques (*Macaca fascicularis*). *J Medical Primatology*. 30:283-289. 2001.

55. Belanger E, Lacerte D, Picard C, Lavallee P, **Levi ADO**: Sub-acute post-traumatic ascending myelopathy after spinal cord injury. *J Neurosurg- (Spine 2)*. 93:294-299. 2000.
56. Choi WW, Green BA, **Levi ADO**: Computer assisted fluoroscopic targeting system for pedicle screw insertion. *Neurosurgery*. 47:872-878. 2000.
57. Vitarbo L, **Levi ADO**: Infections of the lumbar spine – treatment options. *Seminars in Neurological Surgery*. 11:149-164. 2000.
58. Belanger E, **Levi ADO**: Tuberculosis of the axis in a patient with systemic sarcoidosis: Technique of posterior open biopsy of the dens: case report. *Neurosurgery*. 47: 969-972. 2000.
59. Jimenez O, **Levi ADO**: A histopathological analysis of the human cervical spinal cord in patients with acute traumatic central cord syndrome. *Spinal cord*. 38(9):532-537. 2000.
60. Razack N, Green BA, **Levi ADO**: The management of traumatic cervical bilateral facet fracture-dislocations with Unicortical Anterior Plates. *J Spinal Disorders*. 13:374-381. 2000.
61. Belanger E, **Levi ADO**: The acute and chronic management of spinal cord injury. *J American College of Surgeons*. 190:589-604. 2000.
62. **Levi ADO**: Treatment of a retroperitoneal lymphocele after lumbar fusion surgery with intra-lesional povidone-iodine: Technical Case Report. *Neurosurgery* 45:658-661. 1999.
63. Emery E, Li X, Brunschwig JP, Olson L, **Levi ADO**: Assessment of the malignant potential of mitogen stimulated human Schwann cells. *J Peripheral Nervous System*. 4:107-116. 1999.
64. **Levi ADO**, Sonntag VKH, Dickman CA: Management of postoperative infections after spinal surgery. *Techniques in Neurosurgery*. 5:274-281. 1999.
65. Emery E, Aldana P, Bunge MB, Puckett W, Srinivasan A, Keane RW, Bethea J, **Levi ADO**: Apoptosis after traumatic human spinal cord injury. *J Neurosurg*. 89:911-920. 1998.
66. Evans PJ, MacKinnon SE, **Levi ADO**, Wade JA, Hunter DA, Nakao Y, Midha R: Cold Preserved Nerve Allografts: Changes in Membrane Viability, Immunogenicity, and Regeneration. *Muscle & Nerve*. 21:1507-1522. 1998
67. **Levi ADO**, Green BA: Advances in the management of spinal cord injury: has the laboratory increased our understanding? *Neurosurgery Quarterly* 8:236-242 1998.
68. **Levi ADO**, Dickman CA, Sonntag VKH: Management of post-operative infections after spinal instrumentation. *Perspect Neurological Surg* 9:83-100. 1998.
69. **Levi ADO**, Choy J, Keller P, Heiserman J, Sonntag VKH, Dickman CA: The radiographic and imaging characteristics of porous tantalum implants within the human cervical spine. *Spine* 11:1245-1251. 1998.

70. Levi ADO, Sonntag VKH: Management of post-traumatic syringomyelia using expansile duroplasty: a case report. *Spine* 23:128-132. 1998.
71. Konstantinou D, Levi ADO, Dickman CA, Sonntag VKH: Odontoid screw fixation. *BNI Quarterly* 13(2):14-19. 1997.
72. Levi ADO, Dickman CA, Sonntag VKH: Management of post-operative infections after spinal instrumentation. *J Neurosurg* 86:975-980. 1997.
73. Levi ADO, Sonntag VKH, Dickman C, Li R-H, Mather J, Cordoba S, Bichard B, Berens M: The role of cultured Schwann cell grafts in the repair of gaps within the peripheral nervous system of primates. *Exp Neurology* 143:25-36. 1997.
74. Levi ADO: Characterization of the techniques involved in isolating Schwann cells from adult human peripheral nerve. *J Neurosci Methods* 68:21-26. 1996.
75. Levi ADO, Tator CH, Bunge RP: Clinical syndromes which present with disproportionate weakness of the upper versus the lower extremities after cervical spinal cord injury. *Neurosurgery* 38:179-185. 1996.
76. Morrissey TK, Levi ADO, Nuijens A, Sliwkowski MX, Bunge RP: Axon induced mitogenesis of human Schwann cells involves heregulin and p 185^{erbB2}. *PNAS* 92:1431-1435. 1995.
77. Levi ADO, Bunge RP, Lofgren J, Meima L, Hefti F, Nicolics K, Sliwkowski MX: The influence of heregulins on human Schwann cell proliferation. *J Neurosci* 15:1329-1340. 1995
78. Levi ADO, Evans PJ, Mackinnon SE, Bunge RP: Cold Storage of peripheral nerves: an *in vitro* assay of cell viability and function. *Glia* 10:121-131. 1994.
79. Levi ADO, Bunge RP: Studies of myelin formation after transplantation of human Schwann cells in to the severe combined immunodeficient mouse. *Exp Neurol* 130:41-52. 1994.
80. Levi ADO, Guénard V, Aebischer P, Bunge RP: The functional characteristics of Schwann cells cultured from human peripheral nerve after transplantation into a gap within the rat sciatic nerve. *J. Neurosci*; 4:1309-1319. 1994.
81. Levi ADO, Kucharczyk W, Lang A, Schutz H: Clival chordoma presenting with acute brain stem hemorrhage. *Can J Neurol Sci* 18:515-518. 1991.
82. Levi ADO, Wallace MC, Bernstein M, Walters BC: Venous thromboembolism after brain tumor surgery: a retrospective review. *Neurosurgery* 28:859-863. 1991.
83. Mock A, Levi ADO, Drake JM: Spinal hemangioblastoma, syrinx, and hydrocephalus in a two-year old child. *Neurosurgery* 27:799-802. 1990.

Abstracts published:

1. **Levi AD**, Green BA, Wang MY, Dietrich D, Brindle TI, Vanni S, Casella GT, El Hammaady G, Jagid J: The clinical application of modest hypothermia after spinal cord injury. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 25th Annual Meeting, Phoenix, AZ, 2009
2. Levene H, **Levi AD**: Methods of therapeutic cellular injection in to the spinal cord: a literature review. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 25th Annual Meeting, Phoenix, AZ, 2009.
3. Farhat M, **Levi AD**, Aziz-Sultan M : Cervical sub-arachnoid catheter placement for continuous cerebrospinal fluid drainage: as safe and efficacious alternative to the classic lumbar cistern drain. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 25th Annual Meeting, Phoenix, AZ, 2009.
4. Wang MY, Green BA, **Levi AD**, Vanni S, Johnson J, Cummock M: Safety of moderate hypothermia in elective surgery for spinal tumors. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 25th Annual Meeting, Phoenix, AZ, 2009
5. **Levi AD**, Ross AL, Cuartas JE, Qadir R, Temple T: Surgical management of peripheral nerve sheath tumors: assessing the risk. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 25th Annual Meeting, Phoenix, AZ, 2009.
6. Cummock M, Johnson J, Wang MY, **Levi AD**, Vanni S, Green BA: Safety of moderate hypothermia in elective spinal surgery for tumors. World spine V, 2009
7. Manzano GR, Quintero S, Benglis D, **Levi AD**, Wang MY, Vanni S: Early outcomes and complications following minimally invasive lateral lumbar interbody fusion. Congress of Neurological Surgeons, 23rd Annual Meeting, Orlando, FL, 2008.
8. Benglis DM, Wang MY, **Levi AD**: A comprehensive review of the safety profile of bone morphogenetic protein in spine surgery. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 24th Annual Meeting, Orlando, FL, 2008.
9. Berrocal Y, Li X, Lim KT, Panczykowski DM, **Levi AD**: Survival and differentiation of human bone marrow derived stem cells transplanted in to the contused spinal cord of the nude rat.. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 24th Annual Meeting, Orlando, FL, 2008.
10. Bono CM, Grauer J, Rampersaud YR, **Levi AD**, Vaccaro AR, Dvorak M, Fehlings: Reliability of sub-axial cervical spine injury radiographic measurements. NASS, 2007
11. Bono CM, Grauer J, Rampersaud YR, **Levi AD**, Vaccaro AR, Dvorak M, Fehlings: Management and treatment of traumatic spinal cord injuries. AANS – seminar 302, Washington, DC, 2007.

Levi, Allan M.D., Ph.D.

- 12.** Manzano G, Green BA, **Levi AD**: Contemporary management of intramedullary tumors. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 23rd Annual Meeting, Phoenix, AZ, 2007.
- 13.** Rishi S, Martinez G, Li X, **Levi AD**: Survival and differentiation of human bone marrow derived stem cells transplanted in to the contused spinal cord of the nude rat. American Association of Neurological Surgeons (AANS), 72nd Annual Meeting, San Francisco, CA – Resident poster – 3rd prize. 2006
- 14.** Wang MY, **Levi AD**, Oh BC: Minimally invasive lateral mass screw fixation in the cervical spine: initial clinical experience with long term follow-up. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 22nd Annual Meeting, Buena Vista, FL. 2006.
- 15.** **Levi AD**, Hurlbert RJ, Anderson P, Fehlings M, Rampersaud R, Massicotte EM, France JC, Le Huec JC, Hedlund R, Arnold P: Neurological Deterioration Secondary to Unrecognized Spinal Instability Following Trauma - a Multi-center Study. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 21st Annual Meeting, Phoenix, AZ. 2005.
- 16.** Navarro R, Javahery R, Eismont F, Arnold DJ, Bhatia NN, Vanni S, **Levi AD**: The use of sternocleidomastoid muscle flap for esophageal fistula repair in anterior cervical spine surgery. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 21st Annual Meeting, Phoenix, AZ. 2005.
- 17.** Tatsui C, Martinez G, Li X, Germain S, Pattany P, **Levi AD**: Evaluation of DuraGen™ in preventing peridural fibrosis in the rabbit: an “*in vivo*” MRI study. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 21st Annual Meeting, Phoenix, AZ. 2005.
- 18.** Banovac K, Williams JM, Patrick LD, **Levi ADO**: Prevention of heterotopic ossification with COX-2 inhibitor (Rofecoxib), ASIA meeting, Colorado Springs, CO. 2004.
- 19.** Haq I, Marcillo A, Siqueira EB, Norenberg M, Green BA, Levi AD: Post-Operative Fibrosis after Porcine Spinal Cord Surgery: A Comparison of Dural Substitutes. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 20th Annual Meeting, San Diego, CA. 2004.
- 20.** Grijalva I, Li X, Dancausse H, Marcillo A, Salzer J, **Levi ADO**: Neurotrimin expression in normal and injured adult human spinal cord. Soc Neurosci Abstr, New Orleans, LA. 2003.
- 21.** Prusmack C, Rochman AS, **Levi ADO**: The effect of age on survival following traumatic spinal cord injury. Congress of Neurological Surgeons, Denver, CO. 2003.
- 22.** Wang MY, Green BA, Oh BC, **Levi ADO**, Gruen PJ: Minimally invasive cervical expansile laminoplasty: Cadaveric study and initial clinical results. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 19th Annual Meeting, Saddlebrook, Tampa, Florida. 2003.

23. Wang MY, **Levi ADO**, Green BA: Open door expansile cervical laminoplasty for the treatment of cervical spondylotic myelopathy. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 19th Annual Meeting, Saddlebrook Resort, Tampa, Florida. 2003.
24. Wang MY, McNatt SA, Leary SP, **Levi ADO**, Green BA, Gruen PJ: Resorbable polylactic acid spacers in open door cervical laminoplasty. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS), 19th Annual Meeting, Saddlebrook, Tampa, Florida. 2003.
25. Wang MY, **Levi ADO**, Baskaya M, Coscarella E, Silbert L, Green BA: Canal expansion in relation to spacer height in open door laminoplasty, A cadaveric study with clinical corroboration. Cervical Spine Research Society, Miami. 2002.
26. Wang MY, Guest JD, Coscarella E, Baskaya M, **Levi ADO**, Green BA: Minimally invasive cervical expansile laminoplasty: An initial cadaveric study. Cervical Spine Research Society, Miami. 2002.
27. Wang MY, Shah S, **Levi ADO**, Vanni S, Sherman A, Green BA: Lumbar stenosis surgery in the fourth quartile of life. Congress of Neurological Surgeons, Philadelphia. 2002.
28. Wang MY, **Levi ADO**, Green BA. Non-traumatic intradural spinal arachnoid cysts in adults. Congress of Neurological Surgeons, Philadelphia. 2002.
29. Wang MY, **Levi ADO**, Baskaya M, Coscarella E, Green BA, Guest JD: Minimally invasive cervical expansile laminoplasty: An initial cadaveric study. Congress of Neurological Surgeons, Philadelphia. 2002.
30. Haq I, **Levi ADO**, Green BA: Surgical treatment of lesions causing cauda equina syndrome: A study of the factors determining post-operative outcome. Congress of Neurological Surgeons, Philadelphia. 2002.
31. Moza K, Zacur GM, Javahery R, Wang M, Guest JD, Green BA, **Levi ADO**: Long term follow-up of patients treated with ACDF utilizing the Atlantis plating system. Congress of Neurological Surgeons, Philadelphia. 2002.
32. Li X, Dancausse H, Li X, Grijalva I, Oliviera M, **Levi ADO**: Labeling Schwann cells with CFSE – an in vitro and in vivo study. Soc Neurosci Abstr, Orlando. 2002.
33. **Levi ADO**: Peripheral nerve grafts promote central nervous system regeneration after primate spinal cord injury. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 17th Annual Meeting, Phoenix, Arizona. 2001.
34. Uribe J, Vanni S, Jagid, J, Guest JD, **Levi ADO**: Acute traumatic central cord syndrome: Experience using early surgical decompression with open door expansile cervical laminoplasty. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 17th Annual Meeting, Phoenix, Arizona. 2001.

35. Vanni S, Bhattia S, Belanger E, Freedman A, **Levi ADO**: The efficacy of a cervical orthosis with head strap in limiting motion. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 17th Annual Meeting, Phoenix, Arizona. 2001.
36. **Levi ADO**, Dancausse H, Li X, Duncan S, Horky L, Oliviera M: Primate spinal cord repair using peripheral nerve grafts. Soc Neurosci Abstr; 418-8. 2000.
37. **Levi ADO**, Brown M: Surgical management of lumbar disc disease with neurological deficits in pregnancy. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 16th Annual Meeting, Palm Springs, California. 2000.
38. Jimenez O, Green BA, **Levi ADO**: Delayed epidural hematomas after spinal surgery. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 16th Annual Meeting, Palm Springs, California. 2000.
39. Choi WW, Green BA, **Levi ADO**: Computer assisted fluoroscopic targeting system for pedicle screw insertion. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 16th Annual Meeting, Palm Springs, California. 2000.
40. Belanger E, Lacerte D, Picard C, Lavallee P, **Levi ADO**: Sub-acute progressive ascending myelopathy after spinal cord injury. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 16th Annual Meeting, Palm Springs, California. 2000.
41. Choi WW, Green BA, **Levi ADO**: Computer assisted fluoroscopic targeting system for pedicle screw insertion. The 49th Annual Meeting of the Congress of Neurological Surgeons, Boston. 2000.
42. Li X, Dancausse H, Oudega M, **Levi ADO**: The effect of methylprednisolone on apoptotic cell death after rat spinal cord transection. Soc Neurosci Abstr; 704-12. 1999.
43. **Levi ADO**, Emery E, Aldana P, Bunge MB, Puckett W, Srinivasan A, Keane RW, Bethea J: Apoptosis after traumatic human spinal cord injury. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 15th Annual Meeting, Orlando, Florida. 1999.
44. Emery E, Li X, Brunschwig JP, Olson L, **Levi ADO**: Assessment of the malignant potential of mitogen stimulated human Schwann cells. Soc Neurosci Abstr; 27:1. 1998.
45. Emery E, Aldana P, Bunge MB, Puckett W, Srinivasan A, Keane RW, Bethea J, **Levi ADO**: Apoptosis after traumatic human spinal cord injury. Soc Neurosci Abstr; 27:614.10. 1998.
46. **Levi ADO**: A Histopathological Analysis of the Lower Cervical Spinal Cord in Patients with Acute Traumatic Central Cord Syndrome. Joint Section on Disorders of the Spine and Peripheral Nerves. (AANS/CNS) 14th Annual Meeting, Rancho Mirage, California. 1998.

47. Jimenez O, **Levi ADO**: A histopathological analysis of the lower cervical spinal cord in patients with acute traumatic Central Cord Syndrome. The 47th Annual Meeting of the Congress of Neurological Surgeons, New Orleans. 1997.
48. Razack N, Manzano GR, **Levi ADO**, Green BA: Management of bilateral cervical facet dislocation with anterior fusion using Morscher titanium plates. The 47th Annual Meeting of the Congress of Neurological Surgeons, New Orleans. 1997.
49. **Levi ADO**, Dickman CA, Sonntag VKH: The management of post-operative infections after spinal instrumentation. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS) 13th Annual Meeting, Newport Beach, California. 1997.
50. **Levi ADO**, Sonntag VKH, Dickman C, Li R-H, Mather J, Cordoba S, Bichard B, Berens M: The role of cultured Schwann cell grafts in the repair of gaps within the peripheral nervous system of primates. 11th Annual NASS Meeting, Vancouver, Canada. 1996.
51. **Levi ADO**, Sonntag VKH, Dickman C, Li R-H, Mather J, Cordoba S, Bichard B, Berens M: The role of cultured Schwann cell grafts in the repair of gaps within the peripheral nervous system of primates. The 46th Annual Meeting of the Congress of Neurological Surgeons, Montreal, Canada. 1996.
52. **Levi ADO**, Sliwkowski MX, Lofgren J, Hefti F, Bunge RP: The influence of heregulins of human Schwann cell proliferation. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS) 11th Annual Meeting, Phoenix Arizona. 1995.
53. **Levi ADO**, Sliwkowski MX, Lofgren J, Hefti F, Bunge RP: The influence of heregulins on human Schwann cell proliferation 3rd International Symposium on Neurotrauma, Toronto, Canada. 1995.
54. **Levi ADO**, Bunge RP: Human Schwann cell function studied in the SCID mouse: A comparison of cells prepared in tissue culture with Schwann cells presented within xenografts. Joint Section on disorders of the Spine and Peripheral Nerves (AANS/CNS) 10th Annual Meeting, Ft. Lauderdale, Florida. 1994.
55. **Levi ADO**, Sliwkowski MX, Lofgren J, Hefti F, Bunge RP: The influence of heregulins on human Schwann cell proliferation. Soc Neurosci Abstr; 20:299.11. 1994.
56. Morissey TK, **Levi ADO**, Neijens A, Sliwkowski MX, Bunge RP: Axon induced mitogenesis of human Schwann cells involves heregulin and the p185^{erbB2} receptor. Soc Neurosci Abstr 20:299.10. 1994.
57. **Levi ADO**, Guenard V, Aebischer P, Bunge RP: The functional characteristics of purified cultured human Schwann cells studied *in vivo*. Joint Section on Disorders of the Spine and Peripheral Nerves (AANS/CNS) 9th Annual Meeting, Tuscon, Arizona. 1993.

- 58. Levi ADO**, Guenard V, Aebischer P, Bunge RP: The functional characteristics of purified populations of cultured human Schwann cells studied *in vivo*. Soc Neurosci Abstr 18:407.4. 1992.
- 59. Levi ADO**, Tsang BK, Downey BR: Calcium and the regulation of thecal androgen production. Canadian investigators in reproduction-scientific session. Society of Obstetricians and Gynecologists of Canada. Fortieth Annual Meeting in Montreal p. 11. 1984.

Other works submitted for publication:

- 1.** Farhat HI, Elhammady MW, **Levi AD**, Aziz-Sultan MA: Cervical sub-arachnoid catheter placement for continuous cerebrospinal fluid drainage: A safe and efficacious alternative to classic lumbar cistern drain. Submitted to Neurosurgery - 2009.
- 2.** Carvajal JA, Cuartas JE, Qadir R, **Levi AD**, Temple T: Peripheral nerve sheath tumors of the foot and ankle. Submitted to Foot and Ankle Int J- 2009.
- 3.** Scheithauer BW, Silva AI, Amrami KK, Woodruff JM, Edgar M, **Levi AD**, Spinner RJ: Synovial sarcoma of nerve. Submitted to American Journal of Surgical Pathology - 2009
- 4.** Manzano GR, Casella G, Wang M, Vanni, **Levi AD**. A prospective randomized study comparing expansile cervical laminoplasty versus cervical laminectomy and fusion. Spine – in preparation - 2009
- 5.** Johnson J, Cummock M, Green BA, **Levi AD**, Wang MY: Modest hypothermia for intraspinal tumor resection: a historical cohort comparison study. Submitted to J Spinal Cord Med – 2009

PROFESSIONAL

Funded Research Performed:

Active:

- 05/09 – present Sponsor: NIH / NINDS
Topic: Transplantation of autologous Schwann cells for the repair of segmental peripheral nerve defects.
Contract Number R21-NS-063084-01A1
PI: Dr. A. Levi
Percent Effort: 15 %
Amount of Grant: \$420,750
- 06/07 – present Sponsor: NIH / NINDS
Topic: 1. Facilities of Research for Spinal Cord Injury - Outreach; Contract Number N01-NS-3-2351 2. Facilities of Research for Spinal Cord Injury - Replication Studies; Contract Number N01-NS-3-2352
Co-PI: Dr. A. Levi
Percent Effort: 2 %
Amount of Grant: \$17,405
- 06/07 – present Sponsor: State of Florida
Topic: Autologous Schwann cell transplantation within a NeuraGen tube for peripheral nerve repair in the rat
PI: Dr. A. Levi - [IACUC approved](#)
Percent Effort: 10 %
Amount of Grant: \$77,155 annual
- 05/06 – present Sponsor: Integra
Topic: Randomized controlled trial of Duragen Plus adhesion barrier matrix to minimize adhesions following lumbar discectomy
[IRB approved](#)
PI: Dr. A. Levi
Percent Effort: 10 %
Amount of Grant: \$164,380
- 09/03 – present Sponsor: Medtronic Sofamor Danek
Topic: Study of the Bryan™ Cervical Disc Prosthesis in the Treatment of Degenerative Disc Disease – Pivotal IDE Study – [IRB approved](#)
Percent Effort: 20 %
PI: Dr. A. Levi
Amount of Grant: \$85,550

Past:

- 11/07 – 06/08 Sponsor: NFL Charities
Topic: Therapeutic hypothermia following severe spinal cord injury – [IRB approved](#)
PI: Dr. A. Levi
Percent Effort: 5 %
Amount of Grant: \$ 112, 719
- 05/04 – 06/06 Sponsor: Integra
Topic: Quantification of post-operative fibrosis after laminectomy in the rabbit – [IACUC approved](#)
PI: Dr. A. Levi
Percent Effort: 10 %
Amount of Grant: \$53,130
- 06/03 – 06/06 Sponsor: Peacock Foundation
Topic: Regeneration research
PI: Dr. A. Levi
Amount of Grant: \$50,000 / year x 3 years
- 09/02 – present Sponsor: Medtronic Sofamor Danek
Topic: Long term follow-up of patients treated with ACDF utilizing the Atlantis plating system - [IRB approved](#)
PI: Dr. A. Levi
Amount of Grant: \$16,000
- 07/98-06/03 **Sponsor:** National Institute of Health (NIH),
Department of Health and Human Services, and the
Miami Project to Cure Paralysis.
Topic: Cytological Studies of Developing and
Mature Neurons
PI: Dr. M. Bunge
Co-Investigator (10% Effort)
Amount of Grant: \$1,542,562
- 01/97 - 01/02 **Sponsor:** Health Foundation of South Florida
Topic: 1. Primate spinal cord repair using peripheral nerve grafts.
2. Characterization of human Schwann cells
prepared in cell culture after stimulation with
growth factors.
PI: Dr. A. Levi
Amount of Grant: \$1,000,000

- 10/95-12/96 **Sponsor:** North American Spine Society and the Barrow Neurological Institute.
Topic: The role of cultured Schwann cell grafts in the repair of gaps within the peripheral nervous system of primates.
PI: Dr. A. Levi
Amount of Grant: \$50,000
- 07/91-6/94 **Sponsor:** Medical Research Council (MRC) of Canada. (Post-doctoral fellowship).
Topic: 1. Studies on the storage and proliferation of cultured human Schwann cells with observations on their capacity to myelinate regenerating rodent axons *in vivo*.
2. Stored peripheral nerve grafts: an *in vitro* assay of cell survival and function.
PI: Dr. A. Levi
- 05/83-08/84 **Sponsor:** Medical Research Council (MRC) of Canada. The Ottawa Civic Hospital Research Grant. (Summer Student Scholarship).
Location: Reproductive Endocrinology laboratory, Dept. of Obstetrics and Gynecology. The Ottawa Civic Hospital, University of Ottawa.
Topic: The role of the calcium-calmodulin system in the regulation of ovarian theca cell steroidogenesis.
PI: Dr. BK Tsang

17. Editorial responsibilities: Ad hoc reviewer

Glia	Spinal Cord
Neurosurgery	Neuroscience
The Journal of Spine	Journal of Neurotrauma
Neurosurgical Focus	Neuroscience Methods
Experimental Neurology	American Journal of Neuroradiology
The Canadian Journal of Neurological Sciences	The Journal of Neuroscience
	Experimental Hematology

18. Professional and Honorary Organizations:

Congress of Neurological Surgeons - 1987
American Association of Neurological Surgeons - 1987
Florida Medical Association - 1993
Joint Section of Spine and Peripheral Nerve Disorders - 1993
Society for Neuroscience - 1994
Royal College of Physicians and Surgeons of Ontario - 1995
North American Spine Society – 1996
Society of Neurological Surgeons (Senior Society) - 2007

19. Honors and Awards:

- 05/80 Dean's Honor List
Faculty of Science and Engineering
University of Ottawa
- 05/82 B.Sc. Biology with Cum Laude Honors
University of Ottawa
- 1983 Association of Professors of the University of Ottawa (APUO)
Scholarship
- 1985 Medical school class president – 3 rd Year
University of Ottawa
- 06/86 M.D. with Magna Cum Laude Honors
University of Ottawa
- 02/90 Morley Neurosurgical Resident Prize-2nd place for research paper
presentation
Keith Lectureship, University of Toronto
- 02/93 Morley Neurosurgical Resident Prize-1st Place for research paper
presentation Keith Lectureship, University of Toronto
- 02/93 Mayfield Award - Basic Science, from the Joint Section on Disorders of
the Spine and Peripheral Nerve (AANS/CNS)
- 06/93 McKenzie Award - Best resident research presentation for a neurosurgical
resident in Canada
- 05/94 Gallie-Bateman Competitor Finalist, Division of Surgery,
University of Toronto

20. Post-Doctoral Fellowships:

10/95-12/96 Post-doctoral Fellowships:

Supervisors: Dr. M. Berens, Dr. C. Dickman, Dr. V. Sonntag.

Sponsor: North American Spine Society and the Barrow Neurological Institute.

Topic: The role of cultured Schwann cell grafts in the repair of gaps within the peripheral nervous system of primates.

07/91-6/94

Degree: Doctor of Philosophy (Ph.D)

Supervisor: Dr. R.P. Bunge

Sponsor: Post-doctoral fellowship from the Medical Research Council of Canada.

Topic: 1. Studies on the storage and proliferation of cultured human Schwann cells with observations on their capacity to myelinate regenerating rodent axons *in vivo*.

2. Stored peripheral nerve grafts: an *in vitro* assay of cell survival and function.

21. Visiting Professor

April 25, 2003, Bogota, COLUMBIA – **Universidad Javeriana** – Hospital Universitario de San Ignacio, Department of Neurosurgery. Topics 1. Thoracolumbar trauma 2. What is new in cervical spine surgery 3. Miami Project

November 5-6, 2003, New Orleans, LA – **Tulane University** – Gene Therapy Consortium / Neurosurgery – Topic - Human spinal cord injury - Practical considerations in establishing a transplantation protocol.

January 13-14, 2005, Tampa, FL – **University of Southern Florida** - Department of Neurosurgery – Topic – Spine Trauma.

February 9-10, 2006, Irvine, CA – **University of Irvine / California** - Department of Orthopedics / Reeve-Irvine Spinal Cord Research Center – Topic – Unrecognized instability after spine trauma / Human Schwann cell autotransplantation.

May 23-24, 2006, Indianapolis, IN – **University of Indiana** - Department of Neurosurgery – Topic – Unrecognized instability after spine trauma / peripheral nerve surgery / intramedullary spinal cord tumors.

Sept 13-14, 2006, Ottawa, ON – **University of Ottawa** – Division of Neurosurgery – Topic – Spinal cord injury trials /Unrecognized instability after spine trauma / Intramedullary spinal cord tumors.

May 6-7, 2009, Buffalo, NY– **University of Buffalo** – Department of Neurosurgery – Topic – The clinical application of modest hypothermia after acute cervical spinal cord injury. Unrecognized instability after spine trauma / Intramedullary spinal cord tumors.

May 7-8, 2009, Toronto, Ontario- Trillium Hospital – Department of Neurosurgery / Orthopedics Spine center. Topic – The clinical application of modest hypothermia after acute cervical spinal cord injury. / Intramedullary spinal cord and peripheral nerve tumors.

November 10/11, 2009, Houston, TX– **Baylor College of Medicine / MD Anderson** – Department of Neurosurgery – Topic – The clinical application of modest hypothermia after acute cervical spinal cord injury. Intramedullary spinal cord tumors.

22. Invited Speaker:

June 25-30, 1996, London, Ontario, The 31st Meeting of the Canadian Congress of Neurological Sciences. Topic: Surgery of the Occipitocervical Junction.

October 17-20, 1996, Barcelona, SPAIN, The 7th Multiple Sclerosis Workshop: Topic: Biosynthesis of Myelin-Consequences for Remyelination Strategies. Peripheral Remyelination-Schwann Cells.

January 31 - February 8, 1997, Chicago, Illinois, Review Course in Neurological Surgery: The National Center for Advanced Medical Education. Topic: Spinal Cord Injuries.

July 6-11, 1997, Amsterdam, HOLLAND, International Congress of Neurological Surgery. Topic: Transplantation and regeneration after spinal cord injuries.

October 22-24, 1997, Osaka, JAPAN, The 56th Annual Meeting of the Japan Neurosurgical Society. Topic 1: The management of postoperative infections after spinal instrumentation. Topic 2: Therapy to ameliorate functional deficits of spinal cord injury.

November 22, 1997, Fort Lauderdale, FL, The Scoliosis Association's 1997 Spine Conference. Topic: Complications of Spinal Surgery.

February 6, 1998, Chicago, IL, The National Center for Advanced Medical Education: Review Course in Neurological Surgery. Topic: Spinal Cord Injuries.

July, 1998, Miami, I Pan American Neurosurgical course: Topics: Spinal fractures, Spinal cord injury, Cervical and Lumbar spondylosis. Director of spinal instrumentation work shop.

October 3, 1998, Seattle, WA, Congress of Neurological Surgeons. Topic: Cervical Spine Instrumentation.

October 5, 1998, Seattle, WA, Congress of Neurological Surgeons. Topic: Acute Spinal Cord Injury.

February 5, 1999, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

July 7-11, 1999, Miami, II Pan American Neurosurgical course: Topics: Spinal fractures, Spinal cord injury, Cervical and Lumbar spondylosis. Director of spinal instrumentation work shop.

October 30, 1999, Boston, MA. Congress of Neurological Surgeons. Topic: Cervical Spine Stabilization.

November 2, 1999, Seattle, WA. Congress of Neurological Surgeons. Topic:

Thoracolumbar Fractures.

November 12, 1999, Rio de Janeiro, BRAZIL, VI Congresso Multidisciplinar Clinica Sao Vicente. Topic Spinal Trauma – Research at the Miami Project to Cure Paralysis

November 14-15, 1999, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

February 4, 2000, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

February 11-13, 2000, New Haven, CN, Yale Myelin Conference sponsored by the Myelin Project.

February 21, 2000, Marco Island, FL, Spinal Fractures: Perspectives on instability and indications for surgery. 3rd Annual Symposium of the American Society of Spine Radiology

February 24, 2000, Palm Springs, California, Spinal Cord Injury: Update on Management and Future Directions, Joint Section on Disorders of the Spine and Peripheral Nerves.

July 12-16, 2000, Miami, III Pan American Neurosurgical course: Topics: Spinal fractures, Cervical and Lumbar spondylosis. Director of spinal instrumentation work shop.

November 4-6, 2000, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

February 4, 2001, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

March 13, 2001, St. Petersburg, FL, Florida Spine Study Group Topic: Thoracic Pedicle Screws: Indications and techniques.

April 6-7 2001, Phoenix, AZ, Depuy Acromed Surgical Champion Summit: Thoracic Pedicle Screws versus Hooks.

April 25, 2001, Toronto, Canada. American Association of Neurological Surgeons - 70th annual meeting. Topic: Spinal cord injury – contemporary management.

May 27-28, 2001, Savannah, GA. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

October 1, 2001, San Diego, CA. Congress of Neurological Surgeons. Topic: Thoracolumbar Fractures.

October 22, 2001, La Crosse, WI - Gundersen Lutheran Clinic - Topic: Spinal cord injury, Thoracic pedicle screws.

November 3-5, 2001, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

February 8, 2002, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

April 6, 2002, Chicago, IL. American Association of Neurological Surgeons - 71st annual meeting. Topic: Post-traumatic syringomyelia and spinal cord tethering.

May 25-27, 2002, Hartford, CT. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

September 21, 2002, Philadelphia, PA. Congress of Neurological Surgeons. Topic: Cervical Spine Stabilization.

September 23, 2002, Philadelphia, PA. Congress of Neurological Surgeons. Topic: Thoracolumbar Fractures.

November 9-11, 2002, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

January 31, 2003, Miami Beach, FL. Neurological update. Topic: The role of surgery in peripheral nerve lesions.

February 7, 2003, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

May 11-12, 2003, Cincinnati, OH. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

May 15-17, 2003, Colorado Springs, CO. Cervical Spine Study Group annual meeting for residents. Topic: Cervical laminectomy, cervical laminoplasty, cervical laminectomy and fusion.

September 18-20, 2003, Gyeongju, KOREA – 4TH biennial Korea-Japan Conference on Spinal Surgery. Topics: What is new in cervical spine surgery, Miami Project.

November 9-11, 2003, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

February 6, 2004, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries.

May 1, 2004, Orlando, FL. AANS Professional Development Program - Decision Making in Neurosurgery: An Interactive Review by Case Management

May 17-18, 2004, New Orleans, LA. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

September 4-9, 2004, Goiania, BRAZIL – XXV Brazilian Congress of Neurosurgery. Topics: Cervical spondylosis – anterior approaches. Neuro-regeneration – Miami Project.

November 6-8, 2004, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

January 26, 2005, Miami Beach, FL. Neurological update. Topic: What is “new” in spine surgery?

February 3, 2005, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries

May 21-23, 2005, St. Louis, MO. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

November 5-7, 2005, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

December 3-5, 2005, Cartagena, COLUMBIA – 20TH annual International symposium in Neurosurgery – Association of Columbian Neurosurgeons. Topics: Neurotransplantation for SCI, Anterior/posterior approaches to the cervical spine, Management of thoracolumbar trauma.

February 3, 2006, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries

March 18, 2006, Buena Vista, FL. Board Review of Spine Surgery and Peripheral Nerve
Topic: Spine and peripheral nerve cases.

May 7-9, 2006, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

November 6,7, 2006, Houston, TX. AANS Professional Development Program Neurosurgery Review by Case Management: Oral Board Preparation Course.

February 1, 2007, Chicago, IL, Compass Medical Education Network: Review Course in Neurological Surgery. Topic: Spinal Fractures and Spinal Cord Injuries

February 25, 2007, Atlanta, GA. Weekend Update: Interactive Review of Clinical Neurosurgery by Case Management.

Levi, Allan M.D., Ph.D.

March 10, 2007, Phoenix, AZ. Board Review of Spine Surgery and Peripheral Nerve
Topic: Spine and peripheral nerve cases.

May 11, 2007, Buenos Aires, Argentina – V Simposio de Neurociencias FLENI – Topics.
1. Intramedullary tumors 2. What is “new” in spine surgery 3. Laminoplasty 4.
Syringomyelia.

May 20-21, 2007, Houston, TX. AANS Professional Development Program
Neurosurgery Review by Case Management: Oral Board Preparation Course.

Nov 4-5, 2007, Houston, TX. AANS Professional Development Program Neurosurgery
Review by Case Management: Oral Board Preparation Course.

February 27, 2008, Orlando, FL. Topic: Thoracolumbar Fractures. Joint Section on
Disorders of the Spine and Peripheral Nerves.

April 26, 2008, Chicago, IL. American Association of Neurological Surgeons. Topic:
Management of Cervical Spine Deformity.

May 25-27, 2008, Houston, TX. AANS Professional Development Program
Neurosurgery Review by Case Management: Oral Board Preparation Course.

Nov 9-11, 2008, Houston, TX. AANS Professional Development Program Neurosurgery
Review by Case Management: Oral Board Preparation Course.

May 3, 2009, San Diego, CA. American Association of Neurological Surgeons. Topic:
Management of Cervical Spine Deformity. Biologics.

May 24-26, 2009, Houston, TX. AANS Professional Development Program
Neurosurgery Review by Case Management: Oral Board Preparation Course.

Aug 31- Sept 1, 2009. Boston, MA.WFNS. 1. Lumbar fusion techniques 2. New
perspectives in peripheral nerve trauma

October 29, 2009, New Orleans, LA. Congress of Neurological Surgeons. Topic:
Anterior vs. posterior techniques for cervical radiculopathy

October 29, 2009, New Orleans, LA. Congress of Neurological Surgeons. Topic: Human
SCI trials

November 6, 2009, West Palm Beach, FL. American Academy of Neurosurgeons. Topic:
The technique and clinical outcomes of modest intravascular hypothermia after acute
cervical spinal cord injury

TEACHING

23. Teaching Awards Received:

- | | |
|-------|---|
| 06/90 | A.W. Harrison Award, Best Resident Teacher in Surgery, Sunnybrook H.S.C. |
| 06/05 | Roberto C. Heros – Best Resident Teacher award in Neurosurgery, University of Miami |

24. Teaching Specialization (courses taught):

1. Clinical instruction of neurosurgical residents, fellows, and medical students in neurosurgery
2. Director of University of Miami Neurosurgical Resident Course
1998-2001
3. Sophomore Clinical Skills Course mentor for University of Miami medical students:

Mr. Jason Sevald - 1998
Ms. Katherine Nathe - 1999
Mr. Tristram Horton - 2000
Mr. Michael Passineau- 2001
4. Neuroscience graduate program - University of Miami

Rotating students: Mathew Markert
5. Course Director – AANS sponsored Goodman Oral Board preparatory course for Board Certification in Neurosurgery

25. Director of Neurosurgical Spine Fellowship Program

SPINE FELLOWS

Graduate	Name	Last	Current City	State/Country
2010	Richard	Martinez	Miami	Texas/USA
2010	Vartan	Tashijan	Miami	California/USA
2010	Ann	Parr	Miami	Canada
2009	Frank	Farhadi	Columbus	Ohio/USA
2009	Sarah	Woodrow	Camden	New Jersey/USA
2009	Riki	Trivedi	Manchester	England
2009	Howard	Levene	Miami	Florida/USA
2008	Ajay	Pandy	Gainesville	Florida/USA
2007	Brad	Hall	Detroit	Michigan/USA
2006	Andrew	Nataraj	Edmonton	Canada
2006	Richard	Cortez	San Antonio	Texas/USA
2005	Andrew	Cannestra	Jacksonville	Florida/USA
2005	Claudio	Tatsui	Houston	Texas/USA
2005	Nitising	Akkapong	Bangkok	Thailand
2004	Ramon	Navarro	Barcelona	Spain
2003	Iftiqhar	Haq	North Bay	Canada
2002	Michael	Wang	Miami	Florida/USA
2002	Mathew	McDonald	Adelaide	Australia
2001	Steven	Vanni	Miami	Florida/USA
2001	Juan Santiago	Uribe	Tampa	Florida/USA
2000	William	Choi	Denver	Colorado/USA
1999	Eric	Belanger	Bismarck	North Dakota/USA
1998	Brian	Wieder	Cheyenne	Wyoming/USA
1997	Nick	Vrodos	Adelaide	Australia

INFOLDING RESIDENT SPINE SPECIALTY TRAINING

Graduate	Name	Last	City	State/Country
2010	David	Benglis	Miami	Florida/USA
2009	Ted	Brindle	Miami	Florida/USA
2008	Glen	Manzano	Orlando	Florida/USA
2007	Rishi	Sheth	New York	NY/USA
2006	Andrew	Jea	Houston	Texas/USA
2005	Ramin	Javahary	Los Angeles	California/USA
2004	Chad	Prusmack	Denver	Colorado/USA

SERVICE

26. University Committee and Administrative Responsibilities:

University of Miami:

Senior Executive Advisory Committee for The Miami Project to Cure Paralysis 2001 – present

Medical Executive Committee of the University of Miami hospital – 2007 - present

UMMG leadership council – 2004 – present

Academic Personnel Board - University of Miami – 2007-08 / 2008-09

UMMG - Care and Feeding of Referring Physicians Taskforce – 2007/08

External:

Course Director of the AANS Goodman Oral Board Preparation: Neurosurgery Review by Case Management – 2007 to present

Past:

Resident Representative (Junior), Division of Neurosurgery
Educational Committee, University of Toronto, 1990.

Research Liaison Committee, University of Miami School of Medicine: 1997, 1998.

Florida State Reviewer for Brain and Spinal cord injury programs – medical portion
1997-2001

Executive Member of the Florida State Brain and Spinal cord injury Advisory Council
2001-2005

Multi-Specialty Practice Building (MSPB) Design and Development Committee –
2006/07

Neurology Chair – Search Committee, The University of Miami School of Medicine:
2005 – 2007

American College of Surgeons - Young Surgeon Representative 2001 – 2007

American College of Surgeons - Young Surgeon Representative - Committee on Patient
Safety and Professional Liability – 2003 – 2007

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves Program
Committee - 2006

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves Executive
Committee – 2001 - 2006

27. Community / Sports:

Coach – Key Biscayne T- ball '01 + '02

Coach – Key Biscayne coach pitch '03 + '04

Room Parent – Grade 3 class – Gordon Day schools – '05

Marathons (26.2 miles):

2001 - Duluth, MN - Grandma's – 4:34:31

2005 - Miami, FL – Tropical – 4:41:52

2006 - Miami, FL – Tropical – 4:29:20

2006 - New York – NYC – 4:37:16

2007 - West Palm Beach - FL – 4:28:00

2008 - Miami, FL – Tropical – 4:12:24

2009 - Miami, FL – Tropical – 4:16:55

Duathlon - 2007 - Fort Lauderdale – 1:06:56

Sprint Triatholons – 2005 - Key Biscayne – 1:19:56

2006 - Key Biscayne – 1:19:25

2007 - Key Biscayne – 1:23:02

2009 – Key Biscayne – 1:17:10