



CURRICULUM VITAE
THOMAS OWEN CRAWFORD, M.D.

Version Update: June 18, 2007

Demographic and Personal Information

Current University and Hospital Appointments

- 1997 - Associate Professor, Johns Hopkins University School of Medicine, Department of Neurology
- 1997 - Joint Appointment, Department of Pediatrics
- 1999 - Co-Director, Muscular Dystrophy Clinic
- 1995 - Neurologist, Ataxia Telangiectasia Clinical Center

Personal Data:

Address: The Johns Hopkins University School of Medicine
Department of Neurology
Harriet Lane Pediatric Outpatient Building, Suite 2157
200 North Wolfe Street
Baltimore, Maryland, 21287
Tel: 410 955-4259; Fax 410 614-2297
email: tcrawfo@jhmi.edu

Citizenship: United States

Birthplace: Santa Monica, California

Marital Status: Married to Judith Kessen Crawford, daughter Sarah and son William

Education and Training:

- 1972-76 B.A. Psychology and Religion, Yale College, New Haven, Connecticut
- 1976-80 M.D. University of Southern California School of Medicine, Los Angeles, California

- 1980-81 Pediatric Intern, Los Angeles County/University of Southern California Medical Center
Pediatric Pavilion Los Angeles, California
- 1981-93 Pediatric Resident, LAC/USC
- 1983-84 Pediatric Chief Resident, LAC/USC
- 1984-87 Child Neurology Resident, Childrens Hospital of Los Angeles and the Los Angeles
County/University of Southern California Medical Center, Los Angeles, California

- 1987-88 Post-doctoral Research Fellow, Laboratory of Dr Jack Griffin, Department of Neurology,
The Johns Hopkins Hospital

PROFESSIONAL EXPERIENCE:

1984-1987	Clinical Instructor in Pediatrics, University of Southern California, Los Angeles, California
1988 – 1990	Instructor in Neurology, Department of Neurology, The Johns Hopkins Hospital, Baltimore, MD
1990 – 1997	Assistant Professor of Neurology
1991 – 1997	Assistant Professor of Pediatrics,
1996-	Staff Physician, Mt Washington Pediatric Hospital, Baltimore, MD

Research Activities

PUBLICATIONS

PEER REVIEWED ORIGINAL RESEARCH ARTICLES

1. Ruderman JW, Pomerance JJ, Hodgman JE, **Crawford T**. Congenital septicemia due to *Pseudomonas aeruginosa*. Clin Pediatr (Phila) 22: 630-642, 1983.
2. Zions LE, Osterkamp JA, **Crawford TO**, Harvey JP Jr. Congenital annular bands in identical twins. A case report. J Bone Joint Surg 66:450-3, 1984.
3. **Crawford TO**, Mitchell WG, Snodgrass SR. Lorazepam in childhood status epilepticus and serial seizures: Effectiveness and tachyphylaxis. Neurology 37:190-195, 1987.
1. Mitchell WG, **Crawford TO**. Intraventricular alpha 2b interferon for SSPE. Neurology 37:1884, 1987.
2. Mitchell WG, **Crawford TO**. Diagnosis and treatment of intraparenchymal cerebral cysticercosis in children. Pediatrics 82:76-82, 1988.
3. **Crawford TO**, Mitchell WG, Fishman LS, Snodgrass SR. Very high dose phenobarbital for refractory status epilepticus in children. Neurology 38:1035-1040, 1988.
4. Mitchell WG, **Crawford TO**. Lorazepam is the treatment of choice for status epilepticus. J Epilepsy 3:7-10, 1990.
5. Koliatsos VE, **Crawford TO**, Price DL. Axotomy induces nerve growth factor receptor immunoreactivity in spinal motor neurons. Brain Res 549:297-304, 1991.
6. Levine B, Hardwick JM, Trapp BD, **Crawford TO**, Bollinger RC, Griffin DE. *In vitro* and *in vivo* antibody-mediated clearance of alphavirus infection from neurons. Science 254:856-860, 1991.
7. Chaudhry V, **Crawford TO**, DeRossett, SE. Thermal sensitivity of demyelinating neuropathy. Muscle Nerve 16:301-306, 1993.
8. Hsu CD, Feng TI, **Crawford TO**, Johnson TR, Unusual fetal movement in congenital myotonic dystrophy. Fetal Diagn Ther 8:200-2, 1993.
9. Power C, Kong PA, **Crawford TO**, Wesselingh S, Glass JD, McArthur JC, Trapp BD. Cerebral white matter changes in acquired immunodeficiency syndrome dementia: Alterations in the blood-brain barrier. Ann Neurol 34:339-350, 1993.
10. Hsieh S-T, **Crawford TO**, Griffin JW. Neurofilament distribution and organization in the myelinated axon of the peripheral nervous system. Brain Res 642:316-326, 1994.
11. Torres JA, Sponseller P, Kim TS, Kuncel RW, **Crawford TO**. Radiographic and histologic characterization of Tc/tw5 mice: an animal model of lumbosacral agenesis/myelomeningocele. Dev Med Child Neurol 36:698-706, 1994.

12. Hsieh S-T, Kidd GJ, **Crawford TO**, Xu Z, Lin W-M, Trapp BD, Cleveland DW, Griffin JW. Regional modulation of neurofilament organization by myelination in normal axons. *J Neurosci* 14:6392-6401, 1994.
13. Thompson TG, DiDonato CJ, Simard LR, Ingraham SE, Burghes AHM, **Crawford TO**, Rochette C, Mendell JR, Wasmuth JJ. A novel cDNA detects homozygous microdeletions in greater than 50% of type 1 spinal muscular atrophy patients. *Nature Genet* 9:56-62, 1995.
14. Roy N, Mahadevan MS, McLean M, Shutler G, Yaraghi Z, Farahani R, Baird S, Besner-Johnston A, Lefebvre C, Kang X, Salih M, Aubry H, Tamai K, Guan X, Ioannou P, **Crawford TO**, de Jong PJ, Surh L, Ikeda J-E, Korneluk RG, MacKenzie A. The gene for neuronal apoptosis inhibitory protein is partially deleted in individuals with spinal muscular atrophy. *Cell* 80:167-178, 1995.
15. **Crawford TO**, Hsieh S-T, Schryer BL, Glass JD. Prolonged axonal survival in transected nerves of C57BL/Ola mice is independent of age. *J Neurocytol* 24:333-340, 1995.
16. Wong PC, Marszalek J, **Crawford TO**, Hsieh S-T, Griffin JW, Cleveland DW. Increasing neurofilament subunit NF-M expression reduces axonal NF-H, inhibits radial growth, and results in neurofilamentous accumulation in human motor neurons. *J Cell Biol* 130:1413-1422, 1995.
17. Corse AM, Chaudhry V, **Crawford TO**, Kuncel RW, Griffin JW. Sensory nerve pathology in multifocal motor neuropathy. *Ann Neurol* 39:319-325, 1996.
18. Mahattanakul W, **Crawford TO**, Griffin JW, Goldstein JM, Cornblath DR. Cyclosporine-A therapy in chronic inflammatory demyelinating polyneuropathy. *J Neurol Neurosurg Psychiatr*, 60:185-187, 1996.
19. Xu Z, Marszalek JR, Lee MK, Wong PC, Folmer J, **Crawford TO**, Hsieh S-T, Griffin JW, Cleveland DW. Subunit composition of Neurofilaments specifies axonal diameter. *J Cell Bio*, 133:1061-1069, 1996.
20. Roe TF, **Crawford TO**, Huff KR, Costin G, Kaufman FR, Nelson MD. Brain infarction in children with diabetic ketoacidosis. *J Diabet Comp* 10:100-108, 1996.
21. Pegoraro E, Mancias P, Swerdlow SH, Raikow RB, Garcia C, Marks H, **Crawford T**, Carver V, Di Cianno B, Hoffman EP. Congenital muscular dystrophy with primary laminin 2 (merosin) deficiency presenting as inflammatory myopathy. *Ann Neurol* 40:782-791, 1996.
22. Jung D, Duclos F, Apostol B, Straub V, Lee JC, Allamand V, Venzke DP, Sunada Y, Moomaw CR, Leveille CJ, Slaughter CA, **Crawford TO**, McPherson JD, Campbell KP. Characterization of -Sarcoglycan: a novel component of the oligomeric sarcoglycan complex involved LGMD. *J Biol Chem* 271:32321-32329, 1996.
23. Marszalek JR, Williamson TL, Lee MK, Xu Z, Hoffman PN, Beecher MW, **Crawford TO**, Cleveland DW. Neurofilament subunit NF-H modulates axonal diameter by selectively slowing neurofilament transport. *J Cell Biol* 135:711-724, 1996.
24. Ohno K, Quiram PA, Milone M, Wang H-L, Harper MC, Pruitt JN III, Brengman JM, Pao L, Fischbeck KH, **Crawford TO**, Engel AG. Congenital myasthenic syndromes due to heteroallelic nonsense/missense mutations in the acetylcholine receptor subunit gene: Identification and functional characterization of 6 new mutations. *Hum Mol Genet* 6:753-766 1997.
25. Coover DD, Le TT, McAndrew PE, Strasswimmer J, **Crawford TO**, Mendell JR, Coulson SE, Androphy EJ, Prior TW, Burghes AH The survival motor neuron protein in spinal muscular atrophy. *Hum Mol Genet* 6: 1205-14, 1997
26. Flanigan KM, **Crawford TO**, Griffin JW, Goebel HH, Kohlschütter A, Ranells J, Camfield P, Ptáček LJ. Localization of the giant axonal neuropathy gene to chromosome 16q24. *Ann Neurol* 43:143-148, 1997.
27. Cabana MD, **Crawford TO**, Winkelstein JA, Christensen JR, Lederman HM. Consequences of the delayed diagnosis of ataxia-telangiectasia. *Pediatrics* 102: 98-100, 1997.

28. Lin C-L G, Bristol LA, Jin L, Dykes-Hoberg M, **Crawford T**, Clawson L, Rothstein JD, Aberrant glutamate transporter mRNA species in amyotrophic lateral sclerosis. *Neuron* 20:589-602, 1998.
29. Holland NR, **Crawford TO**, Hauer P, Cornblath DR, Griffin JW, McArthur JC. Small-fiber sensory neuropathies: clinical course and neuropathology of idiopathic cases. *Ann Neurol* 44:47-59, 1998.
30. Pegoraro E, Marks H, Garcia CA, **Crawford T**, Mancias P, Connolly AM, Fanin M, Martinello F, Trevisan CP, Angelini C, Stella A, Scavina M, Munk RL, Servidei S, Bonemann C, Bertorini T, Acsadi G, Thompson CE, Gagnon D, Hoganson G, Carver V, Zimmerman RA, Hoffman EP. Laminin alpha2 muscular dystrophy: genotype/phenotype studies of 22 patients. *Neurology* 51:101-110, 1998.
31. Yin X, **Crawford TO**, Li C, Roder J, Tu P-h, Lee VM-Y, Griffin JW, Trapp BD. Myelin-associated glycoprotein modulates axonal caliber and neurofilament organization. *J Neurosci* 18:1953-62, 1998.
32. Rao MV, Houseweart MK, Williamson TL, **Crawford TO**, Folmer J, Cleveland DW. Neurofilament-dependent radial growth of motor axons and axonal organization of neurofilaments does not require the neurofilament heavy subunit (NF-H) or its phosphorylation. *J Cell Biol* 143:171-81, 1998.
33. Gleeson JG, Minnerath SR, Fox JW, Allen KM, Luo RF, Hong SE, Berg MJ, Kuzniecky R, Reitnauer PJ, Borgatti R, Mira AP, Guerrini R, Holmes GL, Rooney CM, Berkovic S, Scheffer I, Cooper EC, Ricci S, Cusmai R, **Crawford TO**, Leroy R, Andermann E, Wheless JW, Dobyns WB, Ross ME, Walsh CA. Characterization of mutations in the gene *doublecortin* in patients with double cortex syndrome. *Ann Neurol* 45:146-53, 1999.
34. **Crawford TO**, Sladky JT, Hurko O, Besner-Johnston A, Kelley RI. Abnormal fatty acid metabolism in childhood spinal muscular atrophy. *Ann Neurol*, 45:337-343, 1999.
35. Sheikh KA, Sun J, Liu Y, Kawai H, **Crawford TO**, Proia RL, Griffin JW, Schnaar RL. Mice lacking complex gangliosides develop Wallerian degeneration and myelination defects. *Proc. Natl. Acad. Sci. USA* 96:7532-7537, 1999.
36. Scott LJC, Griffin JW, Barton NW, Banerjee T, **Crawford T**, Luciano C, McArthur JC, Tournay A, Brady RO, Schiffmann R. Quantitative analysis of epidermal innervation in Fabry's disease and comparison with sural nerve morphometry. *Neurology* 52:1249-1254, 1999.
37. Lewis RF, Lederman HM, **Crawford TO**. Oculomotor abnormalities in ataxia-telangiectasia. *Ann Neurol* 46:287-295, 1999.
38. Lefton-Greif MA, **Crawford TO**, Winkelstein JA, Loughlin GM, Koerner GB, Zahurak M, Lederman HM. Oropharyngeal dysphagia and aspiration in patients with ataxia telangiectasia. *J Pediatrics*, 136:225-231, 1999.
39. Chaudhry VC, **Crawford TO**. Stimulation single-fiber EMG in infant botulism. *Muscle Nerve* 22:1698-1703 1999.
40. **Crawford TO**, Mandir AS, Lefton-Grief MA, Goodman SN, Goodman BK, Sengul H, Lederman HM. Quantitative neurologic assessment of ataxia-telangiectasia. *Neurology*, 54:1505-1509, 2000.
41. Johnston JJ, Kelley RI, **Crawford TO**, Morton DH, Agarwala R, Koch T, Schäffer AA, Francomano CA, Biesecker LG. A novel nemaline myopathy in the Amish caused by a mutation in troponin T1. *Am J Hum Genet*, 67:814-821, 2000.
42. Bizzi A, Ulug AM, **Crawford TO**, Passe T, Bugiani M, Bryan RN, Barker PB. Quantitative proton MR spectroscopic imaging in acute disseminated encephalomyelitis. *Am J Neuroradiol*, 22:1125-1130, 2001.
43. Katz ES, Gauda E, **Crawford T**, Ogunlesi F, Lefton-Greif MA, McGrath-Morrow S, Marcus CL. Respiratory flutter syndrome: an under-recognized cause of respiratory failure in neonates. *Am J Respir Crit Care Med*, 164:1161-1164, 2001.

44. Lewis RF, **Crawford TO**. Slow target-directed eye movements in Ataxia Telangiectasia. *Invest. Ophthalmol. Visual Sci.*, 43:686-691, 2002 .
45. Lunn MPT, **Crawford TO**, Hughes RA, Griffin JW, Sheikh KA. Anti-myelin associated glycoprotein antibodies alter neurofilament spacing. *Brain*, 125:904-911, 2002.
46. Mogayzel PJ, Colombani PM, **Crawford TO**, Yang SC. Bilateral diaphragm paralysis following lung transplantation and cardiac surgery in a 17 year old. *J Heart Lung Transplant* 21:710-712, 2002.
47. Choo-Kang LR, Ogunlesi FO, McGrath-Morrow SA, **Crawford TO**, Marcus CL. Recurrent pneumothoraces associated with nocturnal noninvasive ventilation in a patient with muscular dystrophy. *Pediatr Pulmonol.*, 34:73-78, 2002.
48. Farr AK, Shalev B, **Crawford TO**, Lederman HM, Winkelstein JA, Repka MX. Ocular Manifestations of Ataxia Telangiectasia. *Am J Ophthalmol.* 134:891-896, 2002.
49. Arav-Boger R, **Crawford T**, Steere AC, Halsey NA. Cerebellar ataxia as the presenting manifestation of Lyme disease. *Pediatr Infect Dis J* 21:353-356, 2002.
50. Lin DDM, **Crawford TO**, Barker PB. Proton magnetic resonance spectroscopy in the diagnostic evaluation of suspected mitochondrial diseases. *Am J Neuroradiol* 24:33-41, 2003.
51. Chaudhry V, Chaudhry M, **Crawford TO**, Simmons-O'Brien E, Griffin JW. Toxic neuropathy in patients with pre-existing neuropathy. *Neurology*, 60:337-340, 2003.
52. Hoke A, Ho T, **Crawford TO**, LeBel C, Hilt D, Griffin. Glial cell line-derived neurotrophic factor alters axon schwann cell units and promotes myelination in unmyelinated nerve fibers. *J Neurosci.* 23:561-7, 2003.
53. Kerr DA, Lladó J, Shablott MJ, Maragakis NJ, Irani DN, **Crawford TO**, Krishnan C, Dike S, Gearhart JD, Rothstein JD. Human embryonic germ cell derivatives facilitate motor recover of rats with diffuse motor neuron injury. *J. Neurosci.* 23: 5131-5140, 2003.
54. Jin J-P, Brotto MA, Hossain MM, Huang Q-Q, Brotto LS, Nosek TM, Morton DH, **Crawford TO**. Truncation by Glu₁₈₀ nonsense mutation results in complete loss of slow skeletal muscle troponin T in a lethal nemaline myopathy: function of the muscle fiber type-specific troponin T isoforms. *J Biol Chem*, 278:26159-65, 2003.
55. Garcia ML, Lobsiger CS, Shah SB, Deerinck TJ, Crum J, Young D, Ward CM, **Crawford TO**, Gotow T, Uchiyama Y, Ellisman MN, Calcutt NA, Cleveland DW. NF-M is an essential target for the myelin-directed "outside in" signaling cascade that mediates radial axonal growth. *J Cell Biol* 163:1011-1020, 2003.
56. Nowak-Wegrzyn A, **Crawford TO**, Winkelstein JA, Carson KA, Lederman HM. Immunodeficiency and infections in ataxia-telangiectasia. *J Pediatr* 144:505-511, 2004.
57. Agrawal, PB, Strickland CD, Midgett C, Morales A, Newburger D, Poulos MA, Tomczak KK, Ryan MM, Iannaccone ST, **Crawford TO**, Laing NG, Beggs AH. Heterogeneity of nemaline myopathy cases with skeletal muscle actin (ACTA1) gene mutations. *Ann Neurol* 56:86-96, 2004.
58. Wang X, Huang Q-Q, Breckenridge MT, Chen A, **Crawford TO**, Morton DJ, Jin J-P. Cellular Fate of Truncated Slow Skeletal Muscle Troponin T Produced by Glu₁₈₀ Nonsense Mutation in Amish Nemaline Myopathy. *J Biol Chem.* 280:13241-13249, 2004.
59. Pan B., Fromhold SE, Hess EJ, **Crawford TO**, Griffin JW, Sheikh KA. Myelin-associated glycoprotein and complementary axonal ligands, gangliosides, mediate axon stability in the CNS and PNS: Neuropathology and behavioral deficits in single- and double-null mice. *Exp Neurol.* 195:208-17, 2005.
60. Redett R, Jari R, **Crawford T**, Chen Y-G, Rohde C, Brushart TM. Peripheral pathways regulate motoneuron collateral dynamics. *J Neuroscience.* 25:9406-12, 2005.

61. Hudspeth MP, Holden KR, **Crawford TO**. The “slurp” test: Bedside evaluation of bulbar muscle fatigue. *Pediatrics*, 118(2) e530-3, 2006.
62. **Crawford TO**, Skolasky RL, Fernandez R, Rosquist KJ, Lederman HM. Survival probability in ataxia telangiectasia. *Arch Dis Child*, 91:610-1, 2006.
63. Lin D, **Crawford T**, Lederman H, Barker P. Proton MR Spectroscopic Imaging in Ataxia-Telangiectasia. *Neuropediatrics*, 37:241-246, 2006.
64. Krosschell KJ, Maczulski JA, **Crawford TO**, Scott C, Swoboda KJ. A modified Hammersmith functional motor scale for use in multi-center research on spinal muscular atrophy. *Neuromuscular Dis*, 16:417-426, 2006.
65. Pidcock FS, Krishnan C, **Crawford TO**, Salorio C, Trovato M, Kerr DA. Acute transverse myelitis in childhood: center based analysis of 47 cases. *Neurology*, 68:1474-1480, 2007
66. Alterman N, Fattal-Valevski A, Moyal L, **Crawford TO**, Lederman HM, Ziv Y, Shiloh Y. Ataxia-Telangiectasia: mild presentation despite null *ATM* mutation and severe cellular phenotype. *Am J Med Genet*, *in press*.

EXTRAMURAL SPONSORSHIP

CURRENT SUPPORT

- 2005 - Ataxia Telangiectasia Children’s Project
Clinical Research
TOC support 10%
- 2005 - Families of Spinal Muscular Atrophy
Project Carnival (Drug Treatment Trial)
TOC support 10%
- 2003 - Families of Spinal Muscular Atrophy, Chesapeake Chapter
Support for book on Spinal Muscular Atrophy
TOC support: 20%
- 1995 - Ataxia Telangiectasia Childrens Project
Support for clinical research and Neurologic consultation to ATCC
TOC support; 10 to 15%

PREVIOUS GRANT SUPPORT

- 1989 – 1994 NIH Clinical Investigator Development Award: National Institutes of Health 1 KO8
NS01412-01
- 1997 – 1999 Muscular Dystrophy Association Fatty Acid Oxidation in Spinal Muscular Atrophy
- 1999 – 2001 Families of Spinal Muscular Atrophy Supplemental Dietary Glutamine in the Treatment of
SMA
- 2000 – 2001 Ataxia Telangiectasia Children’s Project Neurologic Pathophysiology of Ataxia-
Telangiectasia
- 2002 – 2005 NIH RO1 NS038650 Survival Motor Neuron Genes in Spinal Muscular Atrophy. P.I.
Arthur Burghes. Commitment: 5%
- 2002 NIH NS 43011 Immunopathogenesis of HIV Neurological Disorders P.I. Justin
McArthur. Commitment: 5%

Educational Activities

EDUCATIONAL PUBLICATIONS

PEER REVIEWED PUBLICATIONS

1. **Crawford TO**, Clinical evaluation of the floppy infant., *Pediatr Ann* 21: 348-54, 1992.
2. **Crawford TO**, Pardo CA. The neurobiology of childhood spinal muscular atrophy. *Neurobio of Dis* 3:97-110, 1996.
3. Chance PF, Ashizawa T, Hoffman EP, **Crawford TO**, Molecular basis of neuromuscular diseases., *Phys Med Rehabil Clin N Am* 9:49-81, 1998.

INVITED REVIEWS

Crawford TO. Ataxia-telangiectasia. *Sem Ped Neurol*, 5:287-294, 1998.

EDITORIALS

1. **Crawford TO**. From enigmatic to problematic: the new molecular genetics of childhood spinal muscular atrophy. *Neurology* 46:335-40, 1996.
2. **Crawford TO**. Concerns about the design of clinical trial for SMA. *Neuromuscular Disorders*, 14:456-460, 2004.

LETTERS

1. **Crawford TO**, Skolasky RL. The Relationship of *SMN* to ALS (letter) *Annals of Neurology*, 52:857-858, 2002.
2. **Crawford TO**, Comi A, Freeman JM, Kossoff EH, Singer H, Vining EPG, Yohay K. , Letter to the Editor re: *Practice Parameter: Evaluation of the child with global developmental delay*, *Neurology* 61:1315, 2003.

BOOKS EDITED

Singer HS, Kossoff EH, Hartman AL, Crawford TO eds. *Treatment of Pediatric Neurologic Disorders*. Taylor and Francis Group, Boca Ratan Florida 2005.

BOOK CHAPTERS

1. Kuncl RW, **Crawford TO**, Rothstein JD, Drachman DB: Motor neuron diseases. In: Asbury AK, McKhann GM, McDonald WI eds: *Diseases of the Nervous System*, Second Edition. W.B. Saunders Co, Philadelphia PA., 1991.
2. Griffin JW, Hoffman PN, **Crawford TO**: Pathophysiology of neuronal and axonal degenerations. In: Asbury AK, McKhann GM, McDonald WI eds: *Diseases of the Nervous System*, Second Edition. W.B. Saunders Co, Philadelphia PA., 1991.
3. **Crawford TO**. Respiratory failure and other complications of neuromuscular disease. In: Holbrook, PR ed; *Textbook of Pediatric Critical Care*. W.B. Saunders, Co. Philadelphia PA, 1993.
4. **Crawford TO**. Thompson JD: Familial neuropathies. In: Johnson RT, Griffin JW, eds: *Current therapy in neurologic disease*, Fourth edition. Mosby-Year Book, Inc. St Louis, Missouri. 1993.
5. **Crawford TO**. Neuromuscular disorders. In: Capute AJ, Pasquale PJ, eds: *Neurodevelopmental Disabilities in Infancy and Childhood*, Second Edition. Paul H Brookes Publishing Co. Baltimore, Maryland 1996.
6. Drachman, D, **Crawford TO**. Major muscular dystrophies. In: Johnson RT, Griffin JW, eds: *Current Therapy in Neurologic Disease*, Fifth edition. Mosby-Year Book, Inc. St Louis, Missouri. 1996.

7. Griffin JW, **Crawford TO**, McArthur JC: Peripheral neuropathies associated with HIV infection. In Gendelman HE, Lipton SA, Epstein L, Swindells S, eds: *The Neurology of Aids*, Chapman & Hall, New York, NY. 1998.
8. **Crawford TO**. The Floppy Infant. In Bradley WG, Daroff RB, Fenichel GM, Marsden CD, eds: *Neurology in Clinical Practice*, Butterworth-Heinemann, Philadelphia, PA 1999.
9. **Crawford, TO**. Spinal Muscular Atrophy: Current Research and Therapy. In Kuncel RW: *Motor Neuron Disease*. WB Saunders, Inc. Philadelphia, PA. 2002.
10. **Crawford TO**, Jones HR. The spinal muscular atrophies and other disorders of the anterior horn cell. In Brown WF, Bolton CF, Aminoff MJ, eds: *Clinical Neurophysiology and Neuromuscular Diseases*, chapter 87. W.B. Saunders, Co. Philadelphia PA 2002.
11. **Crawford TO**. Spinal Muscular Atrophies. In Jones HR, De Vivo DC, Darras BT eds: *Neuromuscular Disorders of Infancy, Childhood and Adolescence: A Clinician's Approach* Chapter 8 Pg 145-166 Butterworth Heinemann, Philadelphia, PA 2003.
12. **Crawford TO**. Infant Botulism. In Jones HR, De Vivo DC, Darras BT eds: *Neuromuscular Disorders of Infancy, Childhood and Adolescence: A Clinician's Approach* Chapter 32 Pg 547-554 Butterworth Heinemann, Philadelphia, PA 2003.
13. **Crawford TO**. The Floppy Infant. In Bradley WG, Daroff RB, Fenichel GM, Jankovic J, eds: *Neurology in Clinical Practice*, Butterworth-Heinemann, Philadelphia, PA 2003.
14. Gatti RA, **Crawford TO**, Mandir AS, Perlman S, Mount HTJ. Ataxia Telangiectasia. In Beal MF, Lang AE, Ludolph A eds: *Neurodegenerative Diseases: Neurobiology Pathogenesis and therapeutics*. Cambridge University Press, Cambridge UK 2005
15. **Crawford TO**. Spinal Muscular Atrophies and Other Disorders of the Anterior Horn Cell. In Holmes GL, Moshé S, Jones HR. *Clinical Neurophysiology of Infancy, Childhood and Adolescence*. In press, 2004.

OTHER MEDIA

1. **Crawford TO**. Infant botulism. In *Neurobase*. Arbor Publishing Co, La Jolla 1994, revised 1997 (CD ROM).
2. Lederman H, **Crawford TO**, eds, Ataxia-Telangiectasia. Handbook for families and caregivers. On line publication at the A-T Children's Project, 1st ed, 2002. www.atcp.org/Handbook%20TOC.htm

ILLUSTRATIONS

Seidel M. Epic Geography, James Joyce's *Ulysses*. (Illustrations by **Crawford TO**) Princeton University Press: Princeton, New Jersey 1976.

TEACHING ACTIVITIES

CLASSROOM INSTRUCTION

- 1992 - Annual participation in 2nd Year Medical Student Neurology/Neuropathology Course
 1995 - Annual participation in Neurology Clinical Skills Course

CME INSTRUCTION (SELECTED)

Symposium Director, Neuromuscular Disorders, Child Neurology Society, October 1992

Brachial Plexus Palsy. Trends in Pediatrics course, Johns Hopkins October, 1995

Spinal Muscular Atrophy. Trends in Pediatrics course, Johns Hopkins October, 1996

Evaluation of the Floppy Infant: Trends in Pediatrics course, Johns Hopkins October, 1997

Ataxia Telangiectasia: Neurogenetics for the Practitioner NYU Post-Graduate Medical School Course, October 1999

Guillain Barre Syndrome; Neuropathies in Children, Ataxia Telangiectasia, and Spinal Muscular Atrophy: Current Concepts in Child Neurology, Children's Hospital and Health Center, San Diego California, June 2000

Ataxia Telangiectasia: American Academy of Neurology 53rd Annual Meeting, Philadelphia, PA. Course Presentation in Pediatric Neurology II, June 2001

Point-Counterpoint: Therapy Services for Developmental Disorders: Trends in Pediatrics course, Johns Hopkins October, 2001

Update on Neuromuscular Disorders: Trends in Pediatrics course, Johns Hopkins October, 2002

Neuromuscular Diseases of Children: From Clinical Evaluation to the Genome: American Academy of Pediatrics, Boston, MA October 2002

Developmental Delay: Trends in Pediatrics course, Johns Hopkins October, 2003

Rational Path to Diagnosis of the Floppy Infant: Child Neurology Society, October 2005

Spinal Muscular Atrophy: Neurogenetics for the Practitioner NYU Post-Graduate Medical School Course, October 2006

NON-CME EDUCATIONAL LECTURES (PATIENT GROUPS)

1992 – present 2-day series of talks on basic science and clinical care topics to patients and families at the annual FSMA yearly combined family and scientific conference

April, 2000 Ataxia Telangiectasia Family Conference, A-T Children's Project, Chicago, Illinois

VISITING PROFESSORSHIPS

Department of Neurology, New Jersey Medical School, Newark, NJ, October 1999

Department of Neurology, Vanderbilt University, Nashville, TN, April, 2003

Department of Neurology, Wayne State University, Detroit MI, January 2006

INVITED LECTURES

Minneapolis, MN *SMA Genetics*: International SMA Consortium, MDA sponsored; October 1995

Clermont-Ferand, France: *Development of a Scale for Assessing the Neurologic Impairment of A-T*. INSERM 7TH International Ataxia-Telangiectasia Workshop, November, 1997

Bethesda, MD: *The Neurologist's Contribution*. Joint NIH, A-T Children's Project Sponsored Conference on Ataxia Telangiectasia, March, 1998

Las Vegas, NV. Eighth International Workshop for Ataxia Telangiectasia Chairman Workshop on Phenotypes, genotypes and immune status September, 1999

Prague, Czech Republic: *Congenital Myasthenic Syndromes, New Developments in Spinal Muscular Atrophy*: International Conference of EMG and Clinical Neurophysiology, September, 1999

Bethesda, MD: *Spinal Muscular Atrophy: What Next?* Joint conference sponsored by Andrew's Buddies and NINDS, May, 1999

Newark, NJ: *Ataxia Telangiectasia*. Neurology Grand Rounds, New Jersey Medical School, October 1999

Cold Springs Harbor, NY: *The Neurologist's Agenda for Research*. The Molecular Neurobiology of ATM, Bambury Conference Series, November 2000

Columbus, OH: *The Neurology of Spinal Muscular Atrophy*. Spinal Muscular Atrophy Diagnosis, Management and Novel Findings Providing Insight for Treatment Conference, Children's Hospital of Columbus, June 2000

Ranch Sante Fe, CA: *Summary of Neural Pathogenesis*. Molecular Neurobiology of ATM Scientific Workshop, A-T Children's Project, Rancho Santa Fe, California, September 2000

Abu Dhabi, United Arab Emirates: *Neuromuscular Diseases of Children*. Grand Rounds, Emirates Palomar Medical Technology Services, October 2000

Tareytown, NY: *Non-Cerebellar Neurologic Deficits in A-T*: The role of DNA damage response defects in Neurodegenerative Diseases, A-T Children's Project, Tareytown, New York, July 2001

Albuquerque, New Mexico: *Spinal Muscular Atrophy*: American Association of Electrodiagnostic Medicine Annual Meeting, September, 2001

Nottingham, England: *Nosology and Semiology of A-T*: Ataxia Telangiectasia Society, Nottingham, England, May 2001

Naarden, Netherlands: *Therapy for Spinal Muscular Atrophy*: 103rd European Neuromuscular Centre, Naarden, the Netherlands, January 2002

Boston, MA: *Congenital Cerebellar Abnormalities in Ataxia Telangiectasia*: Ataxia Telangiectasia International Meeting, Boston MA, May 2002

Nashville, TN: *Spinal Muscular Atrophy*, Neurology Grand Rounds, Vanderbilt University, April, 2003

Frasier Island, Brisbane, Australia: *Insights into pathogenesis from the clinic*. International Ataxia Telangiectasia Workshop, September 2003

Baltimore, MD: *Children's Neuromuscular Disorders*: Neurology Grand Rounds, University of Maryland, October, 2003.

Tel Aviv, Israel: *The Neurology of Ataxia Telangiectasia*: Featured speaker at opening of the clinical center for Association for Fighting A-T Disease, February 2004

Cold Spring Harbor, NY: *Natural history of SMA and the Design of Clinical Trials*: Spinal Muscular Atrophy: What is the molecular basis of neuronal loss? Bambury Conference Series, March 2004

Göteborg, Sweden: *Specific Therapies for SMN-Associated SMA*: World Muscle Society, September 2004

Birmingham, England: *Features of Cerebellar and Extrapyramidal Impairment in A-T, and Insights into the Pathogenesis of A-T from Long-term Neurologic Follow Up*. International Conference on the Clinical Science of Ataxia Telangiectasia. University of Birmingham, October 2004

Washington, D.C.: *Ataxia Telangiectasia* Georgetown University, Department of Neurology Grand Rounds, October 2004

Lake Maggiore, Italy: *Development, Degeneration and Downstream Damage; the Neurology of Ataxia Telangiectasia*. The 2005 International Workshop on Ataxia Telangiectasia, ATM and the DNA Damage Response, July 2005

Bethesda, MD: *Extra-Cerebellar Characteristics of A-T*. NINDS sponsored Ataxia Telangiectasia Clinical Research Workshop, March 2006

Nijmegen, Netherlands: *Neurologic Problems in Children with Ataxia Telangiectasia*. Workshop Nijmegen Breakage Syndrome and Ataxia Telangiectasia, April 2006

Montreal, Canada: *Advances in Acute and Chronic Inflammatory Neuropathies*. 10th International Child Neurology Congress, June, 2006

Edinburgh, Scotland: *The Role of EMG in the diagnosis of the Spinal Muscular Atrophies*. International Congress of Clinical Neurophysiology September, 2006

Washington D.C.: *Spinal Muscular Atrophy and the Spinal Muscular Atrophies*. American Association of Neuromuscular and Electrodiagnostic Medicine, October 2006.

Clinical Activities

MEDICAL LICENSURE:

1980 - 1987	California
1987 - present	Maryland (37130)

BOARD CERTIFICATIONS:

1978-81	National Board of Medical Examiners, Part I (13 June, 1978), Part 2 (9 April, 1980), Part 3 (20 May, 1981); USMRE# 32353864, NBME # 235386
1986	Diplomat American Board of Pediatrics
1990	Diplomat American Board of Psychiatry and Neurology with Special Qualification in Child Neurology (certificate # 721)
1997	Diplomat American Board of Psychiatry and Neurology: Sub-specialty Certification in Clinical Neurophysiology (certificate # 799)

CLINICAL SERVICE RESPONSIBILITIES :

1989 -	Child Neurology Clinic Attending (10% commitment)
1989 -	Co-Director MDA Clinic (10% commitment)
1989 -	Child Neurology Ward Attending (2 months / year)
1996 -	EMG Attending (10% commitment)
1996 - 01	Child Neurology Clinic Attending, Mt Washington Pediatric Hospital (10% commitment)

Organizational Activities

EDITORIAL BOARDS:

2003 – Neuromuscular Disorders

JOURNAL REVIEWER:

Annals of Neurology, 1995 – present
Neurology, 1996 – present
Muscle and Nerve, – 1998 – present
Pediatric Neurology, 1998 – present

Neuromuscular Disorders, 2001 – present
American Journal of Medical Genetics, 2004

OCCASIONAL

Journal of Pediatrics
Pediatrics
Proceedings of the National Academy of Sciences
Journal of Medical Genetics
Human Genetics
Journal of Pediatric Hematology/Oncology

COMMITTEES AND ADVISORSHIPS:

1991	Scientific Selection Committee, Child Neurology Society
1992	Symposium Director, Neuromuscular Disorders Child Neurology Society
2000 –	Medical Advisory Board, Families of Spinal Muscular Atrophy
2002 –	Scientific Advisory Board, Families of Spinal Muscular Atrophy
2003	Wellstone Muscular Dystrophy Clinical Research Center (MDCRC) Scientific Review Panel, NIH
2003 – 05	Medical Advisor, SMA Foundation
2004	Molecular, Cellular and Developmental Neurosciences Special Emphasis Panel (MDCN-A), NIH
2004 -	Senator Paul D. Wellstone Muscular Dystrophy Cooperative Research Centers Data Safety and Monitoring Committee
2006	Muscular Dystrophy Association ad hoc Medical Advisory Committee (March and October meetings)

BOARD ACTIVITIES:

1994 - (Occasional) Examiner, American Board of Neurology and Psychiatry

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

1990-1996	Fellow American Academy of Pediatrics
1985 - Present	Fellow American Academy of Neurology
1987 - Present	Fellow Child Neurology Society
1987 - Present	Society for Neuroscience
1997 - Present	Peripheral Nerve Society
2006	American Neurological Association

INDUSTRY CONSULTATIONS:

1993	Regeneron Pharmaceuticals: CNTF for SMA
1995	University of Michigan: Automated Computerized Morphometry of Nerve
1997	Fujisawa Pharmaceutical Co, Ltd., "A phase IIB study of the effects and safety of FK366 in patients with diabetic neuropathy", Teased fiber analysis of nerve biopsies
1997	Jacobus Pharmaceuticals: 3,4 DiAminopyridine for Congenital Myasthenic Syndromes
2005	CepTor corporation C101 Phase I/II DMD Protocol Development
2006	BG Medicine / SMA Foundation Biomarker Scientific Advisory Board

Honors and Awards

1975
2001
2006

John C. Schroeder Award, Yale College
Frank Ford Award, for excellence in teaching
Fellow, American Neurological Association