

CURRICULUM VITAE
Chang-Yong Tsao, MD

PRESENT TITLE AND AFFILIATION

Professor
Department of Clinical Pediatrics
The Ohio State University College of Medicine
Columbus, Ohio

CITIZENSHIP AND VISA STATUS

U. S. Citizen

OFFICE ADDRESS

Nationwide Children's Hospital
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EDUCATION

UNDERGRADUATE EDUCATION

07/1970-06/1977	Taipei Medical College Taipei, Taiwan	Medical Doctor
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GRADUATE EDUCATION

07/1970-06/1977	Taipei Medical College Taipei, Taiwan	Medical Doctor
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POST-GRADUATE EDUCATION & TRAINING

07/1979-05/1980	Mackay Memorial Hospital Taipei, Taiwan	Pediatric Internship
7/1980-6/1981	Delaware City Memorial Hospital Drexel Hill, PA	Resident Family Practice
07/1981-06/1983	Albert Einstein Medical Center Northern Division Philadelphia, PA	Resident Pediatrics

07/1983-06/1984 University of Cincinnati Medical Ctr Resident Neurology
 Cincinnati, OH

07/1984-06/1986 Children's Hospital Medical Center Fellow Child Neurology
 Cincinnati, OH

ACADEMIC APPOINTMENTS

07/1986-08/1988 Instructor of Neurology, Creighton University/University of Nebraska
 Omaha, NE

09/1988-02/1990 Assistant Professor of Neurology, Creighton University/University of Nebraska
 Omaha, NE

03/1990-06/1997 Assistant Professor of Clinical Pediatrics, Ohio State University
 Columbus, OH

07/1997-06/2003 Associate Professor of Clinical Pediatrics, Ohio State University
 Columbus, OH

07/2003-Present Professor of Clinical Pediatrics, Ohio State University
 Columbus, OH

STATE LICENSURE AND CERTIFICATIONS

LICENSURE

1981-1983	Pennsylvania (inactive)
1983-1986	Nebraska (inactive)
1983-Present	Ohio (active)

CERTIFICATIONS

1988	American Board of Psychiatry and Neurology, with special qualification in child neurology
1989	American Board of Pediatrics
2014	Epilepsy Board, American Board of Psychiatry and Neurology

SERVICE

ACADEMIC ADMINISTRATIVE RESPONSIBILITIES

1993-2006 Coordinator of Pediatric Neurology Residency
Ohio State University
Columbus, OH

INSTITUTIONAL/LOCAL ACTIVITIES

1997-2005 Member, Ethics Committee: Nationwide Children's Hospital; Columbus, OH
2006-2009 Alternate; Faculty Council; Ohio State University; Columbus, OH
2005-2012 Member, Pension Committee, Nationwide Children's Hospital; Columbus, Ohio

NATIONAL ACTIVITIES

1997-1998 Member, Ethics Committee: Child Neurology Society
1998-2005 Member, Membership Committee: Child Neurology Society

HONORS AND AWARDS

1998-2022	Best Doctor of America: Best Doctor, Inc.; Boston, MA
2002	Investigator of the month of PCTI: Nationwide Children’s Hospital; Columbus, OH
2005	Distinguished Service Award of the Ambulatory Clinics: Nationwide Children’s Hospital; Columbus, OH
2006	Physician of the Year: Nationwide Children’s Hospital; Columbus, OH
2007	Notable Employee of Asian Pacific American Heritage Month: Nationwide Children’s Hospital; Columbus, OH

RESEARCH SUPPORT

ONGOING RESEARCH

PI: Jerry R. Mendell January 2013 Protocol Number: PTC124-GD-020-DMD
A phase 3 efficacy and safety study of ataluren (ptc124) in patients with nonsense mutation
dystrophinopathy.
Role: Co-Investigator

PI: Kevin Flanigan April 2013 Protocol Number: HALO-DMD-01
A phase 1b open-label, single and multiple ascending dose study to evaluate the safety, tolerability and pharmacokinetics of ht-100 in patients with duchenne muscular dystrophy.
Role: Co-Investigator

PI: Jerry R. Mendell

Protocol Number: 4658-us-201

Randomized, Double-Blind, Placebo-Controlled, Multiple Dose Efficacy, Safety, Tolerability, and Pharmacokinetics Study of AVI-4658 (Eteplirsen), a Phosphorodiamidate Morpholino Oligomer, administered over 28 weeks in the treatment of ambulant subjects with Duchenne Muscular Dystrophy.

Role: Co-Investigator

PI: Kevin Flanigan	Protocol Number/Title: GSK114876
An exploratory study to assess two doses of GSK2402968 in the Treatment of Ambulant boys with Duchenne Muscular Dystrophy.	
Role: Co-Investigator	

PI: June 1992 – June 1993
NIH-sponsored multicenter felbamate treatment for Lennox-Gastaut syndrome and intractable seizure disorder.
Role: Co-Investigator

PI: _____ Protocol Number: AN094-003
 Diastat Study: (Safety and Efficacy of a Single, Rectal Administration of Diazepam for Acute Repetitive Seizures.)
 Role: Co-investigator

PI: Paolicchi J, Pakalnis A	Protocol Number: N01010
An open-label, multicenter, repeated dose pharmacokinetic study of 20, 40, and 60 mg/kg/day of levetiracetam in children (4-12 years of age inclusive) with refractory partial onset seizures.	
Role: Co-investigator	

PI: Pakalnis A.	Protocol Number: CAPSS-122
A comparison of the efficacy and safety of topiramate versus placebo for the prophylaxis of migraine in pediatric subjects (age 6-11 years).	
Role: Co-investigator (Paolicchi J, Lo WD, Joseph SA)	

PI: Paolicchi J. Protocol Number: AN46046-354
Open-label, long-term safety study of Zonisamide (Zonegran) administered to children with epilepsy.
Role: Co-investigator (Lo WD, Pakalnis A)

PI: Pakalnis A. Protocol Number: 059-02

A randomized, double-blind, placebo-controlled, parallel groups, outpatient study to examine the safety, tolerability, and efficacy of Rizatriptan 5 mg P.O. for the acute treatment of migraine in adolescents.

Role: Co-investigator (Lo WD, Paolicchi J, Rogers P)

PI: Pakalnis A.

Protocol Number: 311CUS/005

A multicenter, double-blind, placebo-controlled, randomized trial and an open-label, long-term tolerability trial of Zolmitriptan (Zomig) for the acute treatment of migraine in adolescent subjects.

Role: Co-investigator (Lo WD)

PI: Pakalnis A.

Protocol Number: SUM30045

A double-blind, placebo-controlled, parallel group study to evaluate two dose levels (5 mg and 10 mg) of Sumatriptan nasal spray in the acute treatment of a single migraine attack in adolescent migraineurs (12-17 years of age).

Role: Co-investigator

PI: Paolicchi J.

Protocol Number: ELN46046-305

An open-label, long-term safety study of Zonisamide as adjunctive therapy in children with partial seizures.

Role: Co-investigator (Pakalnis A, Lo WD)

PI: Paolicchi J.

A double-blind, randomized, multicenter, parallel group study of the safety and efficacy of Zonisamide 5 mg/kg/day versus 12 mg/kg/day as adjunctive therapy in children with partial seizures.

Role: Co-investigator (Pakalnis A, Lo WD.)

PI:

Protocol Number: N01009

A double-blind, randomized, multicenter, placebo-controlled maximum 22 day study of Levetiracetam oral solution as an adjunctive treatment of refractory partial onset seizures in pediatric epileptic subjects ranging in age from 1 month to less than 4 years old.

Role: Co-investigator (Paolicchi J, Pakalnis A, Lo WD, and Zamel K.)

PI:

Protocol Number: M02-552

A randomized, double-blind, parallel-group multicenter study of the safety and efficacy of depakote sprinkle capsules in the treatment of partial seizures in children.

Role: Co-investigator (Paolicchi J, Pakalnis A, Lo WD, Zamel K, Karn M, Terry D.)

PI: Galloway G.

Protocol Number: SUM30047

A randomized, double-blind, placebo-controlled, parallel-group, single-attack study to evaluate the onset of efficacy of a new formulation of Sumatriptan tablets 50 mg and 100 mg in the acute treatment of migraine.

Role: Co-investigator

PI: Pakalnis A.

Protocol Number: M02-554

The safety of Divalproate Sodium Extended Release Tablets in migraine prophylaxis: An open-label extension study in adolescents.

Role: Co-investigator (Paolicchi J, Lo WD, Zamel K.)

PI: Buono R.

Protocol Number: (NIH)

Site PI: Lo WD.

Genetic influences on human epilepsy: genetic variations and anti-epileptic drug response.

Role: Co-investigator (Paolicchi J, Zamel K, Kring D, Terry D)

PI: Paolicchi J.

Protocol Number: TOPAMAT-PEP-300

A randomized, double-blind, placebo controlled, fixed dose-ranging study to assess the safety, tolerability, and efficacy of topiramate oral liquid and sprinkle formulations as adjunctive therapy for infants (1 -23) months of age, inclusive) with refractory partial-onset seizures with open-label extension.

Role: Co-investigator (Pakalnis A, Lo WD, and Zamel K.)

PI: Paolicchi J.

Protocol Number: K826-05-3001

A phase 3, randomized, double-blind, parallel, placebo-controlled, multicenter study, with open-label continuation, of the efficacy and safety of VanquixTM auto-injector (diazepam injection) for the management of selected, refractory, patients with epilepsy who require intermittent medical intervention to control episodes of acute repetitive seizures.

Role: Co-investigator

PI: Tsao, CY.

Protocol Number: OV-1004

Safety and effectiveness of open-label Clobazam in subjects with Lennox-Gastaut syndrome. (IRB05-00459;

Covance Central Laboratories, Inc.)

Role: PI

PI: Mendell JR.

Protocol Number: 5-U54-AR-050733

Phase I gene transfer of rAAV1.tMCK.hαSG for limb girdle muscular dystrophy type 2D (LGMD2D); (National Institutes of Health, National Institute of Arthritis, Musculoskeletal, and Skin Diseases)

Role: Co-Investigator/safety monitor

PI: Shell R.

Phase I/II Study of Valproic Acid and Carnitine in Infants with Type I Spinal Muscular Atrophy (CARNI-VAL Type I).

Role: Co-investigator

PI: Flanigan K.

April 2010 – May 2011

Protocol Number:

A double-blind, escalating dose, randomized, placebo-controlled study to assess the pharmacokinetics, safety

and tolerability of single subcutaneous injection of GSK2402968 in non-ambulant subjects with Duchenne muscular dystrophy (IRB10-00193).

Role: Co-investigator

PI: Flanigan K.

Genetic and molecular characterization of inherited neurological diseases.(IRB10-00527).

Role: Co-investigator (Pyatt R and Mendell JR.)

PI: Mendell JR.

A randomized, Double-Blind, Placebo-Controlled, Multiple Dose, Efficacy Study of AV1-4658, a Phosphorodiamidate Morpholino Oligomer, Administered over 24 weeks in the Treatment of Ambulant subjects with Duchenne muscular dystrophy. (IRB11-00203).

Role: Co-investigator (Flanigan K.)

PI: Mendell JR.

Open-Label, Multiple-Dose, Efficacy, Safety, and Tolerability Study of Eteplirsen in Subjects with Duchenne Muscular Dystrophy who Participated in Study 4658-US-201.

Role: Co-investigator (Flanigan K.)

PI: Mendell JR.

Open-Label, Multiple-Dose, Efficacy, Safety, and Tolerability Study of Eteplirsen in Subjects with Duchenne Muscular Dystrophy who Participated in Study 4658-US-201-4658-us-202.

Role: Co-investigator (Flanigan K. and Sahenk Z.)

PEER REVIEWED

PI: Kriel RL

1998

Protocol Number: AN094-003

Safety and Efficacy of a Single, Rectal Administration of Diazepam for Acute Repetitive Seizures.

The goal of this study is to test Safety and Efficacy of a Single, Rectal Administration of Diazepam for Acute Repetitive Seizures.

Role: Co-investigator

PUBLICATIONS

ARTICLES IN PEER REVIEWED JOURNALS

1. **Tsao CY**. Low-dose trihexyphenidyl in the treatment of dystonia. *Pediatr Neurol*. 1988 Nov-Dec;4(6):381.
2. **Tsao CY**, Ellingson RJ. Normal somatosensory evoked potentials in a child in persistent coma. *Pediatr Neurol*. 1989 Jul-Aug;5(4):257-8.
3. **Tsao CY**, McComb RD. Myalgia with partial defects of mitochondrial enzyme and myoadenylate deaminase. *Pediatr Neurol*. 1990 Jan-Feb;6(1):65.
4. **Tsao CY**, Ellingson RJ. Infantile spasms in two brothers with broad thumbs syndrome. *Clin Electroencephalogr*. 1990 Apr;21(2):93-5.
5. **Tsao CY**, Ellingson RJ, Wright FS. Recovery of cognition from persistent vegetative state in a child with normal somatosensory evoked potentials. *Clin Electroencephalogr* 1991 Jul;22(3): 141-3.
6. **Tsao CY**. Generalized tonic-clonic status epilepticus in a child with cat-scratch disease and encephalopathy. *Clin Electroencephalogr*. 1992 Apr;23(2):65-7.

7. **Tsao CY**, Lo WD, Craenen J. Congestive heart failure and cardiac thrombus as first presentations of Friedreich ataxia. *Pediatr Neurol*. 1992 Jul-Aug;8(4):313-4.
8. **Tsao CY**, Wright FS. Acute chemical pancreatitis associated with carbamazepine intoxication. *Epilepsia*. 1993 Jan-Feb;34(1):174-6.
9. **Tsao CY**, Sommer A, Hamoudi AB. Aicardi syndrome, metastatic angiosarcoma of the leg, and scalp lipoma. *Am J Med Genet*. 1993 Mar 1;45(5):594-6.
10. **Tsao CY**, Boesel CP, Wright FS. A hypotonic infant with complete deficiencies of acid maltase and debrancher enzyme. *J Child Neurol*. 1994 Jan;9(1):90-1.
11. **Tsao CY**, Romshe CA, Lo WD, Wright FS, Sommer A. Familial adrenal insufficiency, achalasia, alacrima, peripheral neuropathy, microcephaly, normal plasma very long chain fatty acids, and normal muscle mitochondrial respiratory chain enzymes. *J Child Neurol*. 1994 Apr;9(2):135-8.
12. **Tsao CY**, Wright FS, Boesel CP, Luquette M. Partial NADH dehydrogenase defect presenting as spastic cerebral palsy. *Brain Dev*. 1994 Sep-Oct;16(5):393-5.
13. **Tsao CY**, Lo WD, Mendell JR, Batley RJ. Critical illness polyneuropathy in a 2-year-old girl with hemorrhagic shock encephalopathy syndrome. *J Child Neurol*. 1995 Nov;10(6):486-8.
14. Tallian KB, Nahata MC, Lo W, **Tsao CY**. Gabapentin associated with aggressive behavior in pediatric patients with seizures. *Epilepsia*. 1996 May;37(5):501-2.
15. Prior TW, Bartolo C, Papp AC, Snyder PJ, Sedra MS, Burghes AH, Kissel JT, Luquette MH, **Tsao CY**, Mendell JR. Dystrophin expression in a Duchenne muscular dystrophy patient with a frame shift deletion. *Neurology*. 1997 Feb;48(2):486-8.
16. **Tsao CY**, Westman JA. Infantile spasms in two children with Williams syndrome. *Am J Med Genet*. 1997 Jul;71(1):54-6.
17. Mendell JT, Panicker SG, **Tsao CY**, Feng B, Sahenk Z, Marzluf GA, Mendell JR. Novel compound heterozygous laminin- α 2-chain gene (LAMA2) mutations in congenital muscular dystrophy. Mutations in brief no. 159. Online. *Hum Mutat*. 1998;12(2):135.
18. **Tsao CY**, Luquette M, Rusin JA, Herr GM, Kien CL, Morrow G 3rd. Leigh syndrome, cytochrome C oxidase deficiency and hypsarrhythmia with infantile spasms. *Clin Electroencephalogr*. 1997 Oct;28(4):214-7.
19. Tallian KB, Nahata MC, **Tsao CY**. Role of the ketogenic diet in children with intractable seizures. *Ann Pharmacother*. 1998 Mar;32(3):349-61. Review. Erratum in: *Ann Pharmacother*. 1998 Dec;32(12):1373.
20. **Tsao CY**, Mendell JR, Rusin J, Luquette M. Congenital muscular dystrophy with complete laminin- α 2-deficiency, cortical dysplasia, and cerebral white-matter changes in children. *J Child Neurol*. 1998 Jun;13(6):253-6.

21. Cereghino JJ, Mitchell WG, Murphy J, Kriel RL, Rosenfeld WE, Trevathan E. Treating repetitive seizures with a rectal diazepam formulation: a randomized study. The North American Diastat Study Group (**Tsao CY**). *Neurology*. 1998 Nov;51(5):1274-82.
22. Kriel RL, Cloyd JC, Pellock JM, Mitchell WG, Cereghino JJ, Rosman NP. Rectal diazepam gel for treatment of acute repetitive seizures. The North American Diastat Study Group (**Tsao CY**). *Pediatr Neurol*. 1999 Apr;20(4):282-8.
23. Sue CM, Bruno C, Andreu AL, Cargan A, Mendell JR, **Tsao CY**, Luquette M, Paolicchi J, Shanske S, DiMauro S, De Vivo DC. Infantile encephalopathy associated with the MELAS A3243G mutation. *J Pediatr*. 1999 Jun;134(6):696-700.
24. **Tsao CY**, Mendell JR. The childhood muscular dystrophies: making order out of chaos. *Semin Neurol*. 1999;19(1):9-23.
25. Mitchell WG, Conry JA, Crumrine PK, Kriel RL, Cereghino JJ, Groves L, Rosenfeld WE. An open-label study of repeated use of diazepam rectal gel (Diastat) for episodes of acute breakthrough seizures and clusters: safety, efficacy, and tolerance. North American Diastat Group (**Tsao CY**). *Epilepsia*. 1999 Nov;40(11):1610-7.
26. **Tsao CY**, Mendell JR, Lo WD, Luquette M, Rusin J. Mitochondrial respiratory-chain defects presenting as nonspecific features in children. *J Child Neurol*. 2000 Jul;15(7):445-8.
27. **Tsao CY**, Mendell JR, Lo WD, Luquette M, Rennebohm R. Myasthenia gravis and associated autoimmune diseases in children. *J Child Neurol*. 2000 Nov;15(11):767-9.
28. **Tsao CY**, Mendell JR, Luquette M, Dixon B, Morrow G 3rd. Mitochondrial DNA depletion in children. *J Child Neurol*. 2000 Dec;15(12):822-4.
29. **Tsao CY**, Mendell JR, Bartholomew D. High mitochondrial DNA T8993G mutation (<90%) without typical features of Leigh's and NARP syndromes. *J Child Neurol*. 2001 Jul;16(7):533-5.
30. Musumeci O, Naini A, Slonim AE, Skavin N, Hadjigeorgiou GL, Krawiecki N, Weissman BM, **Tsao CY**, Mendell JR, Shanske S, De Vivo DC, Hirano M, DiMauro S. Familial cerebellar ataxia with muscle coenzyme Q10 deficiency. *Neurology*. 2001 Apr 10;56(7):849-55.
31. **Tsao CY**, Mendell JR, Friemer ML, Kissel JT. Lambert-Eaton myasthenic syndrome in children. *J Child Neurol*. 2002 Jan;17(1):74-6.
32. **Tsao CY**, Kien CL. Complete biotinidase deficiency presenting as reversible progressive ataxia and sensorineural deafness. *J Child Neurol*. 2002 Feb;17(2):146.
33. **Tsao CY**, Mendell JR. Combined partial deficiencies of carnitine palmitoyltransferase II and mitochondrial complex I presenting as increased serum creatine kinase level. *J Child Neurol*. 2002 Apr;17(4):304-6.
34. **Tsao CY**, Mendell JR, Kissel JT. Dermatomyositis in two siblings and a brief review of familial dermatomyositis. *J Child Neurol*. 2002 Jul;17(7):540-2.
35. Joseph SA, **Tsao CY**. Guillain-Barré syndrome. *Adolesc Med*. 2002 Oct;13(3):487-94.

36. Cereghino JJ, Cloyd JC, Kuzniecky RI; North American Diastat Study Group (**Tsao CY**). Rectal diazepam gel for treatment of acute repetitive seizures in adults. *Arch Neurol*. 2002 Dec;59(12):1915-20.
37. **Tsao CY**, Herman G, Boué DR, Prior TW, Lo WD, Atkin JF, Rusin J. Leigh disease with mitochondrial DNA A8344G mutation: case report and brief review. *J Child Neurol*. 2003 Jan;18(1):62-4.
38. **Tsao CY**. Effective treatment with oxcarbazepine in paroxysmal kinesigenic choreoathetosis. *J Child Neurol*. 2004 Apr;19(4):300-1.
39. Tallian KB, Nahata MC, Lo W, **Tsao CY**. Pharmacokinetics of gabapentin in paediatric patients with uncontrolled seizures. *J Clin Pharm Ther*. 2004 Dec;29(6):511-5.
40. **Tsao CY**, Wenger GD, Bartholomew DW. Cri du chat syndrome and complex karyotype in a patient with infantile spasms, hypsarrhythmia, nonketotic hyperglycinemia, and heterotopia. *Am J Med Genet A*. 2005 Apr;134A(2):198-201.
41. **Tsao CY**, Paulson G. Type 1 ataxia with oculomotor apraxia with aprataxin gene mutations in two American children. *J Child Neurol*. 2005 Jul;20(7):619-20.
42. **Tsao CY**, Mendell JR. Coexisting muscular dystrophies and epilepsy in children. *J Child Neurol*. 2006 Feb;21(2):148-50.
43. **Tsao CY**, Lo WD, Rusin JA, Henwood MJ, Boue DR. Isolated neurosarcoidosis presenting as headache and multiple brain and spinal cord lesions mimicking central nervous system metastases. *Brain Dev*. 2007 Sep;29(8):514-8.
44. **Tsao CY**, Mendell JR. Autistic disorder in 2 children with mitochondrial disorders. *J Child Neurol*. 2007 Sep;22(9):1121-3.
45. **Tsao CY**, Mendell J, Sahenk Z, Rusin J, Boue D. Hypotonia, weakness, and pontocerebellar hypoplasia in siblings. *Semin Pediatr Neurol*. 2008 Dec;15(4):151-3.
46. Guenther UP, Handoko L, Varon R, Stephani U, **Tsao CY**, Mendell JR, Lützkendorf, S, Hübner C, von Au K, Jablonka S, Dittmar G, Heinemann U, Schuetz A, Schuelke M. Clinical variability in distal spinal muscular atrophy type 1 (DSMA1): determination of steady-state IGHMBP2 protein levels in five patients with infantile and juvenile disease. *J Mol Med (Berl)*. 2009 Jan;87(1):31-41.
47. **Tsao CY**, Mendell JR. Partial epilepsy in an adolescent male with limb-girdle muscular dystrophy 1B. *J Child Neurol*. 2009 Mar;24(3):346-8.
48. **Tsao CY**. Current trends in the treatment of infantile spasms. *Neuropsychiatr Dis Treat*. 2009;5:289-99.
49. **Tsao CY**. The efficacy of vagus nerve stimulation in intractable epilepsy associated with nonketotic hyperglycinemia in two children. *J Child Neurol*. 2010 Mar;25(3):375-8.

50. Cottrell CE, Prior TW, Pyatt R, Astbury C, Reshmi S, Bartholomew D, Atkin J, Manickam K, Thrush DL, Pastore M, Mendell J, **Tsao CY**, Al-Dahhak R, Newmeyer A, Gastier-Foster JM. Unexpected detection of dystrophin gene deletions by array comparative genomic hybridization. *Am J Med Genet A*. 2010 Sep;152A(9):2301-7.
51. **Tsao CY**. Intractable epilepsy, audio-visual hallucinations and Charcot-Marie-Tooth disease 1A in an African-American boy. *Clin EEG Neurosci*. 2011 Jul;42(3):206-8.
52. **Tsao CY**. Guanine triphosphate-cyclohydrolase 1-deficient dopa-responsive dystonia presenting as frequent falling in 2 children. *J Child Neurol*. 2012 Mar;27(3):389-91.
53. Rosales XQ, al-Dahhak R, **Tsao CY**. Childhood onset of limb-girdle muscular dystrophy. *Pediatr Neurol*. 2012 Jan;46(1):13-23.
54. Parikh S, Goldstein A, Koenig MK, Scaglia F, Enns GM, Saneto R, Anselm I, Collins A, Cohen BH, Debrosse SD, Dimmock D, Falk MJ, Ganesh J, Greene C, Gropman AL, Haas R, Kahler SG, Kamholz J, Kendall F, Korson MS, Mattman A, Milone M, Niyazov D, Pearl PL, Reimschisel T, Salvarinova-Zivkovic R, Sims K, Tarnopolsky M, **Tsao CY**, van Hove J, Walsh L, Wolfe LA. Practice patterns of mitochondrial disease physicians in North America. Part 1: Diagnostic and clinical challenges. *Mitochondrion*. 2013 Jul 26. doi:pii: S1567-7249(13)00215-8. 10.1016/j.mito.2013.07.116. [Epub ahead of print]
55. Parikh S, Goldstein A, Koenig MK, Scaglia F, Enns GM, Saneto R, Anselm I, Collins A, Cohen BH, Debrosse SD, Dimmock D, Falk MJ, Ganesh J, Greene C, Gropman AL, Haas R, Kahler SG, Kamholz J, Kendall F, Korson MS, Mattman A, Milone M, Niyazov D, Pearl PL, Reimschisel T, Salvarinova-Zivkovic R, Sims K, Tarnopolsky M, **Tsao CY**, van Hove J, Walsh L, Wolfe LA. Practice patterns of mitochondrial disease physicians in North America. Practice Patterns of Mitochondrial Disease Physicians in North America. Part 2: Treatment, Care and Management. *Mitochondrion* (2013), 2013 Sep 21. doi:pii: S1567-7249(13)00247-X. 10.1016/j.mito.2013.09.003. [Epub ahead of print]
56. **Tsao CY**. Muscle disease in children. *Pediatrics in Review* 2014; 35:49-61.
57. **Tsao CY**. Cerebellar ataxia, vertical supranuclear gaze palsy, sensorineural deafness, epilepsy, dementia, and hallucinations in an adolescent male. *Semin Pediatr Neurol* 2014;21:106-108.
58. **Tsao CY**. Effective Treatment of Albuterol in DOK7 Congenital Myasthenic Syndrome in Children. *Pediatr Neurol*. 2016;54:85-87.
59. Waldrop MA, Pastore M, Schrader R, Sites E, Bartholomew D, **Tsao CY**, Flanigan K. Diagnostic Utility of Whole Exome Sequencing in the Neuromuscular Clinic. *Neuropediatrics*. 2019 Apr;50(2):96-102. doi: 10.1055/s-0039-1677734. Epub 2019 Jan 21.
60. Alfano LN, Miller NF, Iammarino MA, Clingenpeel MM, Lowes SL, Dugan ME, Kissel JT, AL Zaidy S, **Tsao CY**, Lowes LP. ACTIVE (Ability Captured Through Interactive Video Evaluation) workspace volume video game to quantify meaningful change in spinal muscular atrophy. *Dev Med Child Neurol* 2019 Apr 8. doi: 10.1111/dmcn.14230. [Epub ahead of print]

61. Waldrop MA, Karingada C, Storey MA, Powers B, Iammarino MA, Miller NF, Alfano LN, Noritz G, Rossman I, Ginsberg M, Mosher KA, Broomall E, Goldstein J, Bass N, Lowes LP, **Tsao CY**, Mendell JR, Connolly AM. Gene Therapy for Spinal Muscular Atrophy: Safety and Early Outcomes. *Pediatrics*. 2020 Sep;146(3):e20200729. doi: 10.1542/peds.2020-0729. *Pediatrics*. 2020. PMID: 32843442
62. Miller NF, Alfano LN, Iammarino MA, Connolly AM, Moore-Clingenpeel M, Powers BR, **Tsao CY**, Waldrop MA, Flanigan KM, Mendell JR, Lowes LP. Natural History of Steroid-Treated Young Boys With Duchenne Muscular Dystrophy Using the NSAA, 100m, and Timed Functional Tests. *Pediatr Neurol* 2020; 113:15-20. PMID: 32979653
63. Alfano LN, Iammarino MA, Reash NF, Powers BR, Shannon K, Connolly AM, Waldrop MA, Noritz GH, Shell R, **Tsao CY**, Flanigan KM, Mendell JR, Lowes LP. [Validity and Reliability of the Neuromuscular Gross Motor Outcome](#). *Pediatr Neurol*. 2021 Sep;122:21-26. doi: 10.1016/j.pediatrneurol.2021.05.021. PMID: 34271497
64. Alayne P. Meyer^{1,2,*}, Megan E. Forrest^{3,*}, Stefan Nicolau^{2,4,5}, Wojciech Wiszniewski⁶, **Chang-Yong Tsao**^{2,4,7}, Anthony Antonellis^{3,8}, Nicolas J. Abreu^{2,4,5,†} **Pathogenic missense variants altering codon 336 of *GARS1* lead to divergent dominant phenotypes**. *Hum Mut*, accepted 3/22/2022; PMID: **35332613** DOI: [10.1002/humu.24372](https://doi.org/10.1002/humu.24372)
65. Waldrop MA, Chagat S, Storey M, Meyer A, Iammarino M, Reash N, Alfano L, Lowes L, Noritz G, Prochoroff A, Rossman I, Ginsberg M, Mosher K, Broomall E, Bass N, Gushue C, Kotha K, Paul G, Shell R, **Tsao CY**, Mendell JR, Connolly AM. Continued safety and long-term effectiveness of onasemnogene abeparvovec in Ohio. *Neuromuscul Disord*. 2024 Jan;34:41-48. doi: 10.1016/j.nmd.2023.11.010. Epub 2023 Dec 2. PMID: 38142474
66. CanEbruBekircan- Kurt 1 | Sharmada Subramanian 2 | Shannon Chagat 3 | Samuel J. Mackenzie 4 | Megan Iammarino 2 | Natalie Reash 2 | Carson Richardson 5 | **Chang-Yong Tsao**^{3,6} | Garey Noritz 6 | Courtney Gushue 6,7 | Kavitha Kotha 6,7 | Grace Paul 6,7 | Richard Shell 6,7 | Lindsay N. Alfano^{2,6} | Linda P. Lowes 2,6 | Anne M. Connolly 2,3,6 | Megan A. Waldrop. Waldrop MA, Flanigan KM. Transitioning From Nusinersen to Risdiplam for Spinal Muscular Atrophy in Clinical Practice: A Single-Center Experience. 02 January 2025 <https://doi.org/10.1002/mus.28329>
67. Lowes LP, Reash NF, Iammarino MA, Connolly AM, Pietruszewski L, Smith MA, Peng J, Steiner CL, **Tsao CY**, Flanigan KM, Chagat S, Meyer AP, Mendell JR, and Alfano LN. Gross motor delays in infants and young boys with Duchenne muscular dystrophy. *J Neuromuscul Dis* 2024;11:1260-1267. <https://doi.org/10.1177/22143602241289223>

INVITED ARTICLES

1. **Tsao CY**. Current trends in the treatment of infantile spasms. *Neuropsychiatr Dis Treat*. 2009;5:289-99.
2. Rosales XQ, **Tsao CY**. Childhood onset of limb-girdle muscular dystrophy. *Pediatr Neurol*. 2012 Jan;46(1):13-23.
3. **Tsao CY**. Muscle disease in children. *Pediatrics in Review* 2014; 35:49-61.

ABSTRACTS

1. **Tsao CY**, Sommer A, Hamoudi A. Aicardi syndrome, metastatic angiosarcoma of the extremity, and scalp lipoma. Presented at the *13th Annual Children's Hospital Research Foundation Research Forum*, June 2-3, 1992.
2. **Tsao CY**, Luquette M, Lo WD. Respiratory chain defects in children. Presented at the *Annual Child Neurology Society Meeting* (Baltimore, MD), October 1995.
3. **Tsao CY**, Bartolo C, Luquette MH, Mendell JR, Prior TW. A Novel Mechanism for the Expression of Dystrophin in a DMD Patient, Presented (as a platform) at the *AAN Meeting* (San Francisco), March 1996.
4. Tallian KB, Nahata MC, **Tsao CY**, Garrard CL, Gibeau JW. Multidisciplinary Approach to the Ketogenic Diet In Pediatric Patients with Intractable Seizures. *ASHP* (midyear clinical meeting) 1996;31:P-273D.
5. Mitchel WG, Shellenberger K, Groves L, Cereghino J, Murphy J, Lo WD, Rosenfeld W, Farwell JR, Diastat Study Group, (**Tsao CY**). Rectal Diazepam Gel (Diastat) for Acute Repetitive Seizures: Results of a Double-Blind, Placebo-Controlled Study Group in Children and Adults with Epilepsy. *American Epilepsy Society*, December 1996.
6. Groves L, Shellenberger K, Franklin J, Lo W, The US Diastat Safety Study Group (**Tsao CY**). Safety and Tolerability of a Single Dose Administration of Diastat® (Diazepam Rectal Gel) to Patients with Epilepsy on Antiepileptic Drugs (AEDS). *American Epilepsy Society*, December 1996.
7. Tallian KB, Nahata MC, **Tsao CY**, Wolowich WR, Lo WD. Pharmacokinetics and Safety of Gabapentin in Pediatric Patients with Uncontrolled Partial Seizures. *Pharmacotherapy* 1997;17,1:192.
8. KrielRL, CloydJC, Pellock JM, Mitchell WG, Cereghino JL, Rosman NP, The North American Diastat group (Dreifuss FE, Faught E, Murphy J, **Tsao CY**, Farrell K, Riela AR, Cheng R, Sharp G, Farwell JR, Crumrine PK, Abou-Khalil BW, Chutorian AM, Kotagal P, Ramsay RE, Bergen DC, Brown LW, Conry JA, Kramer RE, Holland PC.) Rectal Diazepam Gel (Diastat) in the Treatment of Children with Acute Repetitive Seizures. *Ann Neurol* 1998;44:568-69. Presented (poster) at the *27th Annual Meeting of the Child Neurology Society* (Montreal, Canada), October 22-24, 1998.

9. Novak P, Lo WD, **Tsao CY**, Pakalnis A, Paolicchi J, Novak V, Mendell JR. Autonomic Dysfunction in a Case of Infant Botulism, Presented (poster abstract) at the *IX International Symposium on the Autonomic Nervous System* (Fort Meyers, FL), October 30-November 1, 1998.
10. Sue CM, Bruno C, Andreu A-L, Cargan A, Mendell JR, **Tsao CY**, Shanske S, DiMauro S, and DeVivo DC. Infantile Encephalopathy associated with the MELAS A3243G mutation. *Ann Neurol*. 1998;44:580. Presented (poster) at the *27th Annual Meeting of the Child Neurology Society* (Montreal, Canada), October 22-24, 1998.
11. Paolicchi JM, Joseph SA, Russin JA, Pakalnis AO, **Tsao CY**, Gilles EE, Lo WD. The Incidence of Mesial Temporal Sclerosis in Very Young Children. *Epilepsia* 1999;40(suppl 7):117. Presented (poster) at the *American Epilepsy Society Meeting* (Orlando, FL), December 3-8, 1999.
12. Paolicchi J, **Tsao CY**. The Effectiveness of Vagus Nerve Stimulation in pediatric patients with medically Intractable Epilepsy. *Epilepsia* 2000;41(suppl 7):178. Presented (poster) at the *American Epilepsy Society* (Los Angeles, CA), December 1-6, 2000.
13. Prior TW, Herman GE, **Tsao CY**, Boue D, Atkin JF. Leigh syndrome associated with a homoplasmic A8344G MERRF mutation. *AM J Hum Genet* 2002;71(#4):500. Presented at the *Annual Meeting of American Human Genetic Society*, 2002.
14. N. Miller ; L. Alfano; M. Iammarino; M. Dugan; M. Moore-Clingenpeel; S. Al-Zaidy; **C. Tsao**; M. Waldrop; K. Flanigan; J. Mendell; L. Lowes. **Utility of the Bayley-III, North Star Ambulatory Assessment, and 100-meter timed test in quantifying gross motor delay in very young boys with Duchenne muscular dystrophy.** Annual World Muscle Society Congress, held last week 10/1-10/5/18 in Mendoza, Argentina (<http://www.wms2018.com/>) – the 23rd meeting of the organization.
15. M. Iammarino ; L. Alfano; N. Miller; M. Dugan; M. Moore-Clingenpeel; S. Al-Zaidy; **C. Tsao**; M. Waldrop; K. Flanigan; L. Rodino-Klapac; J. Mendell; L. Lowes **Utility of ACTIVE workspace volume as a clinically meaningful measure of functional capacity in individuals with neuromuscular disease.** Annual World Muscle Society Congress, held last week 10/1-10/5/18 in Mendoza, Argentina (<http://www.wms2018.com/>) – the 23rd meeting of the organization.
16. L. Alfano ; N. Miller; M. Iammarino; K. Berry; M. Moore-Clingenpeel; M. Dugan; S. Al-Zaidy; **C. Tsao**; L. Rodino-Klapac; M. Waldrop; K. Flanigan; J. Mendell; L. Lowes. **Clinically meaningful change on the 100-meter timed test in neuromuscular diseases.** Annual World Muscle Society Congress, held last week 10/1-10/5/18 in Mendoza, Argentina (<http://www.wms2018.com/>) – the 23rd meeting of the organization.
17. Megan A. Waldrop, Linda P. Lowes, Jeannie Toops, Lindsay N. Alfano, Natalie F. Miller, Megan A. Iammarino, Kavitha Kotha, Grace Paul, Melissa Moore-Clingenpeel, **Chang-Yong Tsao**, Garey Noritz, Richard Shell, Kevin M. Flanigan. Clinical outcomes in patients with spinal muscular atrophy types 1, 2, or 3 after 1 year of nusinersen therapy. Annual World Muscle Society Congress 2019.

18. Lindsay N Alfano; Natalie F Miller, Megan A Iammarino, Brenna R Powers, Kiana Shannon, Anne M Connolly, Megan A Waldrop, Richard Shell, Chang-Yong Tsao, Kevin M Flanigan, Jerry R Mendell, Linda P Lowes. **Utility of the Neuromuscular Gross Motor Outcome to quantify function in neuromuscular disorders. Annual World Muscle Society Congress 2020.**
19. [OUTCOME MEASURES: EP.325 Remote testing: is it worth the effort? Feasibility in the clinical and research setting](#)
B. Powers, N. Reash, M. Iammarino, K. Shannon, M. Waldrop, A. Connolly, K. Flanigan, C. Tsao, J. Mendell, L. Lowes, L. Alfano
Neuromuscul Disord. 2021 Oct; 31: S149. Published online 2021 Sep 18. doi: 10.1016/j.nmd.2021.07.350
PMCID: PMC8449707
20. Meyer AP, Hickey ES, Nicolau S, Tsao CY, Waldrop MA. Improvement in respiratory and bulbar function in two patients with SMALED2B Annual World Muscle Society Congress 2022

BOOK CHAPTERS

1. **Tsao CY**, Mendell JR. The Muscular Dystrophies. In Appel SH, ed. *Current Neurology*. Amsterdam: IOS Press; 1997; Vol.17, Suppl-46.
2. **Tsao CY**, Mendell JR. Childhood Muscular Dystrophy Sharing a Common Pathogenesis of Membrane Instability. In Younger DS, ed. *Textbook of Motor Disorders*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 1999, pp. 139-148.
3. **Tsao CY**, Mendell JR. The Childhood Muscular Dystrophies: Making Order Out of Chaos. *Seminar Neurol* 1999;19:9-23.
4. Joseph SA, **Tsao CY**. Guillain-Barre Syndrome. *Adolescent Medicine State of Art Reviews*. 2002;13:487-494.
5. **Tsao CY**. Hypotonic Infant Syndrome. In Lynn J, Newton H, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott, Williams & Wilkins Inc.; 2004; pp. 234-235.
6. **Tsao CY**. Mitochondrial Diseases. In Lynn J, Kissel J, Newton H, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2004; pp. 270-271.
7. **Tsao CY**. Congenital Muscular Dystrophy. In Lynn J, Kissel J, Newton H, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2004; pp. 282-283.
8. **Tsao CY**. Congenital Myopathy. In Lynn J, Kissel J, Newton H, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2004; pp. 296-297.
9. **Tsao CY**. Gangliosidoses. In Lynn J, Newton H, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2004; pp. 202-203.

10. Lo WD, **Tsao CY**. Acute head injuries in children. In Rakel RE, Bope ET, eds. *Conn's Current Therapy*; 2005; pp.
11. **Tsao CY**. Hypotonic Infant Syndrome. In Lynn DJ, Newton HB, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2012; pp. 238-239.
12. **Tsao CY**. Mitochondrial disorders. In Lynn J, Newton H, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2012; pp. 272-273.
13. **Tsao CY**. Congenital Muscular Dystrophy. In Lynn J, Newton H, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2012; pp. 280-281.
14. **Tsao CY**. Gangliosidoses. In Lynn J, Newton H, Rae-Grant AD, eds. *The 5 Minute Neurology Consult*. Philadelphia, PA: Lippincott Williams & Wilkins Inc.; 2012; pp. 206-207.
15. **Tsao CY**. Duchenne muscular dystrophy. In Weisleder P, ed. *Manual of Pediatric Neurology*. Hackensack, NJ: World Scientific Inc.; 2012; pp. 87-89.
16. **Tsao CY**. Spinal muscular atrophy. In Weisleder P, ed. *Manual of Pediatric Neurology*. Hackensack, NJ: World Scientific Inc.; 2012; pp. 91-94.
17. **Tsao CY**. Myasthenia gravis, in in Weisleder P, ed. *Manual of Pediatric Neurology*. Hackensack, NJ: World Scientific Inc.; 2012; pp. 95-98.

EDITORIALS AND REVIEW ACTIVITIES

JOURNAL REVIEWER

Prior to 2012 (cannot remember the exact dates):

Pediatrics

Archives of Disease in Children

Neuromuscular disorders

Epilepsia

American Journal Medical Genetics

British Medical Journal

Postgraduate Medicine

India Neurology

Brain and Development

Developmental Medicine Child Neurology

Journal of Pediatric Neurology

European Journal of Neurology

Pediatric Neurology

Pediatric Neurology since 2013

NeuroMolecular Medicine 2013

BMC Pediatrics 4/2014
European Journal of Medical Genetics 5/2014
BMC Clinical Pathology 8/2014
Journal of Child Neurology 11/2014

2015 BMC Medical Genetics 6/25/2015
2015 Medicine 7/7/2015
2015 Neurology 7/2015

2016 Pediatric Neurology 5/2016

2017 Pediatric Neurology 1/2017, 8/2017

2018 Pediatric Neurology 8/2018
2019 Pediatric Neurology 2/2019, 3/2019, 6/2019
2021 Pediatric neurology 9/2021
2023 Pediatric neurology 1/2023

Book Review:

Fedrizzi E, Avanzini G, Crenna P, eds. Motor Development in Children. *Mariani Foundation Pediatric Neurology*. 2.

TEACHING

04/20/90 "Chorea and Management" in patient management conference.
04/26/90 "Seizure Disorder in Children" to 5TN residents.
05/16/90 "CNS Malformation" Neonatology/Surgery lecture series.
06/15/90 "Seizure Disorder in Children" to 5TN residents.
10/12/90 "Floppy baby syndrome" 6AE residents and medical students.
11/11/90 "Floppy baby syndrome" 6AE residents and medical students.
02/14/91 "Febrile Seizures, Headaches, and Herpes Simplex Encephalitis" Taught to 4
6AE medical students and 4 residents.
02/20/91 "CNS malformations" Neonatology/Surgery lecture series.
04/19/91 "Febrile Seizures" to pediatric residents.
05/10/91 "Infantile Spasms and Demonstration of Neurological Examination" to 6AE residents
and medical students.
07/12/91 "Floppy Baby Syndrome and Werding-Hoffman's Syndrome" 6AE pediatric
residents and medical students.
07/17/91 "Status Epilepticus" Annual Emergency lecture series (all new pediatric residents).
09/20/91 "How to Approach a Child with Neuromuscular Disease" Lounge and Learn series.
09/20/91 "Patient Management: Treatment of Spasticity." Attended 6TS nurse conference.
10/08/91 "Seizure Disorder." 6AE pediatric residents and medical students.

11/15/91 "Weakness and Hypotonia in Newborns." Conference for all pediatric
residents and medical students.

01/07/92 "Cortical Blindness" in Problem Conference for medical students, residents and medical staff.

02/07/92 "Guillaine-Barre Syndrome and Seizure Disorder." 6AE pediatrics residents and medical students.

02/11/92 "Multiple Sclerosis" in Problem Conference for medical students, residents and medical staffs.

02/19/92 "Congenital Brain Malformations." Neonatology Surgery Lecture Series to surgery students, residents and staffs

03/13/92 "Classification, Diagnosis and Treatment of Headaches in the Pediatric Population" to all pediatric residents

04/02/92 "Ataxia and Gait Disorders" to all pediatric residents and medical students.

06/10/92 "Hysterical Conversion Reaction: Differentiating Neurological Disorders from Psychiatric Disorders" child psychiatry fellows.

06/19/92 "Floppy baby syndrome" 6AE residents and medical students.

07/16/92 "Status Epilepticus in Children." Annual emergency lecture series to all residents and attending physicians.

08/08/92 "Seizure Disorders in Children." 6AE residents and medical students.

08/15/92 "Headache in Children." 6AE medical students and residents.

09/04/92 "Anticonvulsant Pharmacokinetics." 6AE medical students and residents.

09/11/92 "Neurological Examination." 6AE medical students and residents.

04/14/93 "Headache in children." 12 pediatric residents.

05/21/93 "Hypotonia in children." 15 pediatric residents.

06/18/93 "Ataxia and gait disorder." 20 pediatric residents.

07/16/93 "Status epilepticus in children." 39 pediatric residents.

09/11/93 Invited lecture: "Common pediatric neurology diseases." To Ohio/West Virginia Association for Medical transcriptionists.

05/18/94 "Hypotonia in children." 11 pediatric residents.

07/18/94 "Status epilepticus as emergency." Lecture series to 35 residents, fellows and faculty.

02/13/95 "Headache in children." 20 medical students and residents.

05/26/95 "Seizure disorders and treatment in children." medical students and residents.

09/18/95 "Status epilepticus." Emergency lecture series to pediatric residents and medical students.

11/10/95 "The application of molecular genetics in pediatric neurology." Lounge and learn session to medical staff physicians.

01/04/96 "Update in Guillain-Barre Syndrome and Duchenne Muscular Dystrophy." Pediatric grand rounds in Stecker Auditorium.

08/ /96 "Status epilepticus." Emergency lecture series: pediatric residents and medical students.

09/18/96 "Pediatric epilepsy." Riverside family practice residency program.

02/25/97 "Cerebral palsy." Lecture to 32 medical students.

03/26/97 "Pediatric neuromuscular diseases." Lecture to 10 pediatric residents.

04/21/97 "Seizure disorders." Lecture to 31 medical students.

05/12/97 "Common neuromuscular diseases." Lecture to 22 pediatric residents.

08/26/97 "Status epilepticus." Lecture to pediatric residents and medical students.

10/20/97 "Seizure disorder." Lecture to 32 medical students.

11/10/97 "Hereditary myopathies." Lecture to pediatric residents.

12/16/97 "Cerebral palsy." Lecture to 32 medical students.

02/02/98 "Neurocutaneous syndrome." Lecture (noon conference) to pediatric residents and medical students.

02/23/98 "Seizure disorder." Lecture to 32 medical students.

04/01/98 "Floppy baby syndrome." Lecture (noon conference) to pediatric residents

05/27/98 "Review on pediatric neurology." Lecture for 3rd and 4th year pediatric residents on pediatric board examination.

06/22/98 "Seizure disorder." Lecture to 32 medical students.

08/18/98 "Status epilepticus." Core lecture series for pediatric residents and medical students.

10/20/98 "Seizure disorder." Lecture to 32 medical students.

05/18/99 "Metachromatic leukodystrophy." Lecture to 7 neurology residents and 12 medical students.

05/26/99 "Pediatrics boards." Review to 3rd year residents.

06/22/99 "Seizure disorder." Lecture to 32 medical students.

08/18/99 "Status epilepticus." Core lecture series for pediatric residents and medical students.

10/26/99 "Cerebral palsy." Core lecture series for 32 medical students.

01/25/00 "Mitochondrial diseases." Lecture to 7 neurology residents and 5 medical students.

04/24/00 "Seizure disorder." Lecture to 35 medical students.

08/16/00 "Status epilepticus." Core lecture series to pediatric residents and medical students.

10/11/00 "Treatable ataxia." Core lecture series to OSU neurology medical students and residents.

10/23/00 "Cerebral palsy." Core lecture series to 32 medical students.

12/19/00 "Cerebral palsy." Lecture to 32 medical students.

04/23/01 "Cerebral palsy." Lecture to 32 medical students.

08/13/01 "Status epilepticus." Lecture to pediatric residents and medical students.

01/03/02 "Leigh's syndrome and mitochondrial disorders." Clinicopathological conference (grand round) to medical staffs, medical students and residents.

03/06/02 "Febrile Seizures." 2001-2002 Lecture to Grant Family Practice Residency lecture series.

04/11/02 "Cerebral palsy." Lecture 32 medical students.

06/10/02 "Metabolic myopathy." Professor's Rounds for medical students, residents, fellows and attendings in the departments of neurology and neuropsychology.

06/12/02 "Febrile seizure & febrile seizure syndrome update." June core lecture series for pediatric residents.

12/09/02 "Pseudotumor cerebri." Professor's round lecture the medical students, residents, fellows and attendings in the departments of neurology and neuropsychology.

01/23/03 "Pediatric neuromuscular junction disorders." Professor's round lecture to fellows, residents and medical students in the department of Neurology in the Ohio State University.

06/23/03 "Cerebral palsy." Core lecture series to 32 medical students.
Teaching neurology and pediatrics residents while on service daily; on service 2 months/year.

08/26/03 "Acute headache." Lecture to all pediatric residents.

11/20/03 "Floppy infant syndrome." Lecture for OSU Neurology residents.

02/03/04 "Floppy infant syndrome." Lecture to all pediatric residents.

08/25/04 "Type 1 ataxia with oculomotor apraxia with aprataxin gene mutations in two American children." Lecture for neurology section.

09/20/04 "Coexisting muscular dystrophy and epilepsy in children." Lecture to neurology, neuropsychology attendings, pediatric residents and medical students.

11/09/04 "Pediatric neuromuscular junction disorders." Lecture to all pediatric residents.

01/11/05 "Update in new antiepilepsy drugs." Invited lecture to Central Ohio Child Psychiatry Society.

02/21/05 "Susac's syndrome." Lecture to neurology, neuropsychology attendings and nurses.

03/31/05 "Pediatric neuromuscular junction disorders." Lecture to neurology residents and medical students.

04/15/05 "The indication of evidence-based new antiepileptic drugs in children." Invited lecture at the Department of Mackay Memorial Hospital at **Taipei, Taiwan.**

07/18/05 "Combined Becker Muscular Dystrophy and Glycerol Kinase Deficiency in an adolescent patient." Professor round for neurology and neuropsychology departments.

11/09/05 "Mood disorders in epilepsy." Invited lecture to Dayton area Neurologists and Psychiatrists.

01/23/06 "Floppy baby syndrome." Lecture to OSU adult and child neurology residents.

03/20/06 "Spinal muscular atrophy respiratory distress type 1." Lecture to neurology department nurses, fellow and medical students.

04/17/06 "Neuromuscular weakness." Lecture to neurology department nurses, fellow and medical students as part of Pediatric Critical Care Lecture Series.

04/19/06 "Pediatric neuromuscular junction disorders." Invited Lecture to the Ohio University College of Osteopathic Medicine, CORE System, Pediatric RPAC Educational Day Program.

05/12/06 "Duchenne muscular dystrophy: update and gene therapy." Invited Lecture to the Department of Pediatrics of Mackay Memorial Hospital in **Taipei, Taiwan.**

05/30/06 "Neonatal neuromuscular disorders." Lecture to all pediatric residents.

06/16/06 Pediatric Board Review on pediatric neurology with pediatric residents.

09/05/06 "Neuromuscular causes of hypotonia." Lecture to all pediatric residents.

09/28/06 "Vagus Nerve Stimulation for pharmacoresistant intractable epilepsy in children." Invited lecture to Central Ohio Neurologists.

01/08/07 "Hypotonic infant." Invited lecture to OSU Neurology residents.

04/02/07 "Neuromuscular weakness." Lecture to PICU fellows as part of Pediatric Critical Care Lecture Series.

04/19/07 "Pediatric movement disorders." Lecture to PICU fellows at the Department of Pediatrics of Mackay Memorial Hospital in **Taipei, Taiwan.**

06/23/07 "Vagus Nerve Stimulation for treatment of intractable epilepsy in children with nonketotic hyperglycinemia." Invited lecture at Annual Nonketotic Hyperglycinemia Meeting; Columbus, Ohio.

01/09/08 "Mitochondrial disorders." Lecture to adult neurology residents.

03/17/08 "Duchenne muscular dystrophy gene therapy update." Invited lecture at the Department of Pediatrics in the MacKay Memorial Hospital in **Taipei, Taiwan.**

03/19/08 "Duchenne muscular dystrophy gene therapy update." Invited lecture at the Department of Pediatrics in Taipei City Hospital Zhong-Xing Branch in **Taipei, Taiwan.**

04/14/08 "Neuromuscular weakness." Lecture to PICU fellows as part of Pediatric Critical Care Lecture Series.

04/24/08 "Myotonic dystrophy." Lecture to neurology section in Nationwide Children's Hospital.

06/03/08 "Mitochondrial disorders." Lecture to pediatric residents.

02/04/09 "Mitochondrial disorders." Lecture to OSU neurology residents.

05/04/09 "Channelopathy." Lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**

06/08/09 "Neuromuscular Weakness." Lecture to the Pediatric Critical Care Fellowship Program (4) fellows.

06/07/10 "Neuromuscular Weakness." Lecture to the Pediatric Critical Care Fellowship Program to fellows.

01/05/11 "Mitochondrial disorder." Lecture to OSU neurology residents and students.

02/17/11 "Hypothermia therapy for hypoxic ischemic encephalopathy." Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**

- 05/05/11 “Neuromuscular Weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 01/04/12 “Mitochondrial disorders.” Lecture to OSU neurology department residents and students.
- 02/01/12 “Pediatric neuromuscular disorders.” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 03/20/12 “Common pediatric myopathy and peripheral neuropathy.” Lecture to all pediatric residents.
- 04/05/12 “Mitochondrial disorder.” Lecture to neurology department.
- 04/12/12 “Neuromuscular weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 02/04/13 “Neonatal Stroke.” Invited Lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 04/11/13 “Neuromuscular weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 08/26/13 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” to 2013 Myology Training Course in Nationwide Children’s Hospital from August 26-30, 2013.
- 02/10/14 “Muscle disease in children” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 02/26/14 Mitochondrial disorder. Lecture to OSU Neurology Department.
- 06/12/14 “Neuromuscular weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 08/25/14 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” to 2014 Myology Training Course in Nationwide Children’s Hospital from August 25-29, 2014.
- 12/17/14 “Mitochondrial disorder” Lecture to OSU Neurology Department.
- 02/13/15 “Neurodegenerative diseases in children” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 04/02/15 “Neuromuscular weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 08/25/15 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” to 2015 Wellstone Myology Training Course in Nationwide Children’s Hospital from August 25-29, 2015.
- 12/17/15 “Mitochondrial disorder” lecture to OSU Neurology Department.
- 02/16/16 “Epileptic encephalopathies” as invited lecture to the Department of Pediatrics in Mackay Memorial Children’s Hospital in **Taipei, Taiwan.**
- 06/02/16 “Neuromuscular weakness.” Lecture to the Pediatric Critical Care Fellowship Program.
- 08/29/16 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 29-September 2, 2016.
- 09/01/16 Presentation of “Titinopathy in a girl with hypotonia and developmental delay” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 29-September 2, 2016.
- 01/19/17 “Mitochondrial disorder” lecture to OSU Neurology Department.
- 02/06/17 “Floppy infant” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 02/06/17 “Floppy infant” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in **Taipei, Taiwan.**
- 08/28/17 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 28-September 1, 2017.
- 08/31/17 Presentation of “Titinopathy in a girl with hypotonia and developmental delay” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 28-September 1, 2017.

- 01/17/18 “Mitochondrial disorder” lecture to OSU and Nationwide Children’s Hospital Neurology Residents and Fellows.
- 08/27/18 Invited speaker “ Emery-Dreifuss muscular dystrophy and Laminopathies” at 7th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 27-31, 2018.
- 01/30/19 Invited lecture on “neonatal seizures” to the Department of Pediatrics in Mackay Memorial Hospital, Mackay Memorial Medical University in **Taipei, Taiwan**.
- 08/26/19 Invited lecture on “ Emery-Dreifuss muscular dystrophy and Laminopathies” at 8th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 26-30, 2019.
- 2/4/20 Invited lecture on “Autoimmune encephalitis” to the Department of Pediatrics in Mackay Children’s Hospital, Mackay Medical University in Taipei, Taiwan. 2/4/20 Invited lecture on “Autoimmune encephalitis” to the Department of Pediatrics in Mackay Children’s Hospital, Mackay Medical University in Taipei, Taiwan
- 8/30/21 Invited lecture on “ Emery-Dreifuss muscular dystrophy and Laminopathies” at 10th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 30-September 3, 2021.
- 8/29/22 Invited lecture on “ Emery-Dreifuss muscular dystrophy and Laminopathies” at 11th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 29-September 2, 2022.
- 9/22/22 Pediatric neuromuscular junction disorders on September 22, 2022 to neurology division attendings, fellows, residents and medical students.

CURRICULUM DEVELOPMENT

1. Pediatric neurology core teaching manual and syllabus, including pediatric epilepsy and treatment, common pediatric neuromuscular diseases, floppy baby syndrome, tic disorders.
2. Development of Ketogenic Diet for treatment of intractable seizure disorders of children at Columbus Children's Hospital.
3. Development of Spinal Muscular Atrophy as part of the module for the Pediatric training program in 2005.
4. Development of Mitochondrial disorders in children as part of the module for the Pediatric training program in 2005-2006.

EDUCATION LEADERSHIP ROLES

Panel Speaker: June 15, 1990. Sixth Annual Menkes Disease Networking Program: parents group panel discussion.

Coordinator: 1996 Annual Meeting of Epilepsy Foundation of America (Epilepsy, the future begins now). Columbus, Ohio.

Coordinator: April 6, 2000. Spinal Muscular Atrophy Conference. Nationwide Columbus Children's Hospital (Thomas Crawford, MD, John Bach, MD, Thomas Prior, MD, Arthur Burghes, PhD., Jerry R Mendell, MD) Columbus, Ohio.

LECTURES/PRESENTATIONS

NATIONAL/INTERNATIONAL

09/89 – 09/00 Question-writer: Neurology portion of the examination for The American Board of Pediatrics.

08/94 Visiting Professor: The Department of Pediatrics, MacKay Memorial Hospital, affiliated with Taipei Medical College, Taipei, Taiwan. Lecture on "Pediatric Epilepsy."

07/96 Visiting Professor: The Department of Pediatrics, MacKay Memorial Hospital, affiliated with Taipei Medical College, Taipei, Taiwan. Lecture on "Muscular Dystrophy and Mitochondrial Diseases."

04/98 Visiting Professor: The Department of Pediatrics, MacKay Memorial Hospital, affiliated with Taipei Medical College, Taipei, Taiwan. Lecture on "Update on Childhood Muscular Dystrophy."

10/04 – 08/98 Visiting Professor: The University of Hawaii School of Medicine. Core lectures on,

- a.) Status epilepticus
- b.) Myasthenia gravis
- c.) Muscular dystrophy
- d.) Headache
- e.) Neurocutaneous syndrome.

10/14/99 Visiting Professor: The Department of Pediatrics, Tzu-Chi Medical College, Hualien, Taiwan. Lecture on muscular dystrophy.

07/13/00 Visiting Professor: Mackay Memorial Hospital, affiliated with Taipei Medical College in Taiwan. Lecture on "Mitochondrial diseases in pediatrics."

06/04/01 Visiting Professor: Mackay Memorial Hospital, affiliated with Taipei Medical College in Taiwan. Lecture on "Myasthenic syndrome and infantile botulism."

01/02 – 04/02 Mentor: Visiting associate professor Munhyang Lee, MD, Ph.D. from Samsung Medical Center, Sung Kyun Kwan University, College of Medicine, Seoul, Korea. Nationwide Children's Hospital; Columbus, Ohio.

- 05/21/02 Visiting Professor: Mackay Memorial Hospital in Taipei, Taiwan. Lecture on “Guillain-Barre syndrome and variants.”
- 05/24/04 Visiting Professor: Mackay Memorial Hospital in Taipei, Taiwan. Lecture on “Autism.”
- 04/15/05 Visiting Professor: Mackay Memorial Hospital, Taipei, Taiwan. Lecture on “Evidence Based Antiepileptic Drug Use in Pediatrics.”
- 05/12/06 “Duchenne muscular dystrophy: update and gene therapy.” Invited Lecture to the Department of Pediatrics of Mackay Memorial Hospital in Taipei, Taiwan.
- 04/19/07 “Pediatric movement disorders.” Invited lecture to the Department of Pediatrics of Mackay Memorial Hospital in Taipei, Taiwan.
- 06/23/07 “Vagus Nerve Stimulation for treatment of intractable epilepsy in children with nonketotic hyperglycinemia.” Invited lecture at the *Annual Nonketotic Hyperglycinemia Meeting*. Columbus, Ohio.
- 03/17/08 “Duchenne muscular dystrophy gene therapy update.” Invited lecture to the Department of Pediatrics in the MacKay Memorial Hospital in Taipei, Taiwan.
- 03/19/08 “Duchenne muscular dystrophy gene therapy update.” Invited lecture to the Department of Pediatrics in Taipei, City Hospital Zhong-Xing Branch in Taipei, Taiwan.
- 03/19/08 “Duchenne muscular dystrophy gene therapy update.” Invited lecture to the Department of Pediatrics in Taipei City Hospital Zhong-Xing Branch in Taipei, Taiwan.
- 05/04/09 “Channelopathy.” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 02/17/11 “Hypothermia therapy for hypoxic ischemic encephalopathy.” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 02/01/12 “Pediatric neuromuscular disorders” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 02/04/13 “Neonatal Stroke.” Invited Lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 08/26/13 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” to 2013 Myology Training Course in Nationwide Children’s Hospital from August 26-30, 2013.
- 02/10/14 “Muscle disease in children” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.

- 02/13/15 “Neurodegenerative diseases in children” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 02/16/16 “Epileptic encephalopathies” as invited lecture to the Department of Pediatrics in Mackay Memorial Children’s Hospital in Taipei, Taiwan.
- 08/29/16 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 29-September 2, 2016.
- 09/01/16 Presentation of “Titinopathy in a girl with hypotonia and developmental delay” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 29-September 2, 2016.
- 01/19/17 “Mitochondrial disorder” lecture to OSU Neurology Department.
- 02/06/17 “Floppy infant” Invited lecture to the Department of Pediatrics in Mackay Memorial Hospital in Taipei, Taiwan.
- 08/28/17 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 28-September 1, 2017.
- 08/31/17 Presentation of “Titinopathy in a girl with hypotonia and developmental delay” at 6th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 28-September 1, 2017.
- 01/17/18 “Mitochondrial disorder” lecture to OSU and Nationwide Children’s Hospital Neurology Residents and Fellows.
- 08/27/18 Invited speaker “Emery-Dreifuss muscular dystrophy and Laminopathies” at 7th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 27-31, 2018.
- 01/30/19 Invited lecture on “neonatal seizures” to the Department of Pediatrics in Mackay Memorial Hospital, Mackay Memorial Medical University in Taipei, Taiwan.
- 08/26/19 Invited lecture on “Emery-Dreifuss muscular dystrophy and Laminopathies” at 8th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 26-30, 2019.
- 8/30/21 Invited lecture on “Emery-Dreifuss muscular dystrophy and Laminopathies” at 10th Annual Wellstone Myology Training Course in Nationwide Children’s Hospital/Ohio State University from August 30-September 3, 2021.

LOCAL/REGIONAL

- 09/11/93 “Common pediatric neurology diseases.” Invited lecture to Ohio/West Virginia Association for Medical Transcriptionists.
- 03/06/02 “Febrile seizures.” Invited lecture for the 2001-2002 Grant Family Practice Residency lecture series.
- 01/11/05 “Update in new antiepilepsy drugs.” Invited lecture to the Central Ohio Child Psychiatry Society.
- 11/09/05 “Mood disorders in epilepsy.” Invited lecture to the Dayton area neurologists and psychiatrists.
- 04/19/06 “Pediatric neuromuscular junction disorders.” Invited Lecture to the Ohio University College of Osteopathic Medicine, CORE System, Pediatric RPACE Educational Day Program.
- 09/18/06 “Pediatric epilepsy.” Lecture to Riverside Family Practice residency program.
- 09/28/06 “Vagus Nerve Stimulation for pharmacoresistant intractable epilepsy in children.” Invited lecture to Central Ohio Neurologists.

ADVISEES

Mentor for visiting associate professor Munhyang Lee, MD, Ph.D. from Samsung Medical Center, Sung Kyun Kwan University, College of Medicine, Seoul, Korea. Jan.-Apr., 2002, in Nationwide Children’s Hospital, Columbus, Ohio.

STUDENT ADVISORY COMMITTEES

- 2000-2006 Soka spirit Buddhist club at the Ohio State University
- 2002-2016 Tzu Chi Collegiate Association at the Ohio State University

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- 1986-present Active member, Child Neurology Society
- 1986-present Active member, American Epilepsy Society
- 1988-present Active member, American Academy of Neurology
- 1988-present Fellow member, American Academy of Neurology
- 1990-present Fellow member, American Academy of Pediatrics

I have reviewed the curriculum vitae for completeness and accuracy and agree with its content.

Signature _____

Date _____