



Brenda Porter, MD, PhD

Professor of Neurology and of Pediatrics at the Stanford University Medical Center
Neurology & Neurological Sciences

CLINICAL OFFICES

- **Child Neurology**

730 Welch Rd Ste 206

Palo Alto, CA 94304

Tel (650) 723-0993

Fax (650) 721-6350

Bio

CLINICAL FOCUS

- Neurology - Child Neurology

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Neurology & Neurological Sciences
- Professor - Med Center Line, Pediatrics
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Fellowship: Childrens Hospital of Philadelphia GME Office (2002) PA
- Board Certification: Epilepsy, American Board of Psychiatry and Neurology (2016)
- Residency: Hospital of the University of Pennsylvania (2000) PA
- Residency: St Louis Childrens Hospital (1997) MO
- Internship: St Louis Childrens Hospital (1996) MO
- Board Certification: Clinical Neurophysiology, American Board of Psychiatry and Neurology (2003)
- Board Certification: Neurology - Child Neurology, American Board of Psychiatry and Neurology (2002)
- Medical Education: Washington Univ School Of Med (1995) MO
- MD,PhD, Washington University School of Medicine , Neurobiology and Medicine (1995)

LINKS

- PREVENT: <https://www.tsalliance.org/prevent-enrolling/>
- PREVENT: <https://clinicaltrials.gov/ct2/show/NCT02849457>
- SLC13A5: <https://tessresearch.org/>

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CLINICAL TRIALS

- Preventing Epilepsy Using Vigabatrin In Infants With Tuberous Sclerosis Complex, Recruiting

Publications

PUBLICATIONS

- **The Epilepsy Genetics Initiative: Systematic reanalysis of diagnostic exomes increases yield** *EPILEPSIA*
Berkovic, S. F., Goldstein, D. B., Heinzen, E. L., Laughlin, B. L., Lowenstein, D. H., Lubbers, L., Stewart, R., Whittemore, V., Angione, K., Bazil, C. W., Bier, L., Bluvstein, J., Brimble, et al
2019; 60 (5): 797–806
- **Stereotactic laser ablation for completion corpus callosotomy.** *Journal of neurosurgery. Pediatrics*
Huang, Y., Yecies, D., Bruckert, L., Parker, J. J., Ho, A. L., Kim, L. H., Fornoff, L., Wintermark, M., Porter, B., Yeom, K. W., Halpern, C. H., Grant, G. A.
2019: 1–9
- **Robot guided pediatric stereoelectroencephalography: single-institution experience** *JOURNAL OF NEUROSURGERY-PEDIATRICS*
Ho, A. L., Muftuoglu, Y., Pendharkar, A., Sussman, E. S., Porter, B. E., Halpern, C. H., Grant, G. A.
2018; 22 (5): 489–96
- **Robot-guided pediatric stereoelectroencephalography: single-institution experience.** *Journal of neurosurgery. Pediatrics*
Ho, A. L., Muftuoglu, Y., Pendharkar, A. V., Sussman, E. S., Porter, B. E., Halpern, C. H., Grant, G. A.
2018: 1–8
- **Normal Development of the Perineuronal Net in Humans; In Patients with and without Epilepsy** *NEUROSCIENCE*
Rogers, S. L., Rankin-Gee, E., Risbud, R. M., Porter, B. E., Marsh, E. D.
2018; 384: 350–60
- **Alterations of network synchrony after epileptic seizures: An analysis of post-ictal intracranial recordings in pediatric epilepsy patients** *EPILEPSY RESEARCH*
Tomlinson, S. B., Khambhati, A. N., Bermudez, C., Kamens, R. M., Heuer, G. G., Porter, B. E., Marsh, E. D.
2018; 143: 41–49
- **Somatic SLC35A2 variants in the brain are associated with intractable neocortical epilepsy** *ANNALS OF NEUROLOGY*
Winawer, M. R., Griffin, N. G., Samanamud, J., Baugh, E. H., Rathakrishnan, D., Ramalingam, S., Zagzag, D., Schevon, C. A., Dugan, P., Hegde, M., Sheth, S. A., McKhann, G. M., Doyle, et al
2018; 83 (6): 1133–46
- **Clinical and electrographic features of sunflower syndrome** *EPILEPSY RESEARCH*
Baumer, F. M., Porter, B. E.
2018; 142: 58–63
- **Refractory focal epilepsy in a paediatric patient with primary familial brain calcification** *SEIZURE-EUROPEAN JOURNAL OF EPILEPSY*
Knowles, J. K., Santoro, J. D., Porter, B. E., Baumer, F. M.
2018; 56: 50–52
- **De novo variants in the alternative exon 5 of SCN8A cause epileptic encephalopathy** *GENETICS IN MEDICINE*
Berkovic, S. F., Dixon-Salazar, T., Goldstein, D. B., Heinzen, E. L., Laughlin, B. L., Lowenstein, D. H., Lubbers, L., Milder, J., Stewart, R., Whittemore, V., Angione, K., Bazil, C. W., Bier, et al
2018; 20 (2): 275–81
- **Clinical and electrographic features of sunflower syndrome.** *Epilepsy research*
Baumer, F. M., Porter, B. E.
2018; 142: 58–63

- **Delay in pediatric epilepsy surgery: A caregiver's perspective.** *Epilepsy & behavior : E&B*
Shen, A., Quaid, K. T., Porter, B. E.
2018; 78: 175–78
- **Language Dysfunction in Pediatric Epilepsy.** *The Journal of pediatrics*
Baumer, F. M., Cardon, A. L., Porter, B. E.
2018; 194: 13–21
- **Refractory focal epilepsy in a paediatric patient with primary familial brain calcification.** *Seizure*
Knowles, J. K., Santoro, J. D., Porter, B. E., Baumer, F. M.
2018; 56: 50–52
- **Clinical spectrum and genotype-phenotype associations of KCNA2-related encephalopathies** *BRAIN*
Masnada, S., Hedrich, U. S., Gardella, E., Schubert, J., Kaiwar, C., Klee, E. W., Lanpher, B. C., Gavrilova, R. H., Synofzik, M., Bast, T., Gorman, K., King, M. D., Allen, et al
2017; 140: 2337–54
- **Analyses of SLC13A5-epilepsy patients reveal perturbations of TCA cycle** *MOLECULAR GENETICS AND METABOLISM*
Bainbridge, M. N., Cooney, E., Miller, M., Kennedy, A. D., Wulff, J. E., Donti, T., Jhangiani, S. N., Gibbs, R. A., Elsea, S. H., Porter, B. E., Graham, B. H.
2017; 121 (4): 314–19
- **R-SCAN: Imaging for Pediatric Simple Febrile Seizures.** *Journal of the American College of Radiology*
Lee, S., Fisher, P., Grant, G. A., Porter, B., Dannenberg, B., Wintermark, M.
2017
- **Increased metalloproteinase activity in the hippocampus following status epilepticus** *EPILEPSY RESEARCH*
Dubey, D., McRae, P. A., Rankin-Gee, E. K., Baranov, E., Wandrey, L., Rogers, S., Porter, B. E.
2017; 132: 50-58
- **Interictal network synchrony and local heterogeneity predict epilepsy surgery outcome among pediatric patients** *EPILEPSIA*
Tomlinson, S. B., Porter, B. E., Marsh, E. D.
2017; 58 (3): 402–11
- **Spatiotemporal Mapping of Interictal Spike Propagation: A Novel Methodology Applied to Pediatric Intracranial EEG Recordings** *FRONTIERS IN NEUROLOGY*
Tomlinson, S. B., Bermudez, C., Conley, C., Brown, M. W., Porter, B. E., Marsh, E. D.
2016; 7
- **Increased precursor microRNA-21 following status epilepticus can compete with mature microRNA-21 to alter translation.** *Experimental neurology*
Chak, K., Roy-Chaudhuri, B., Kim, H. K., Kemp, K. C., Porter, B. E., Kay, M. A.
2016; 286: 137-146
- **KCNQ2 encephalopathy Features, mutational hot spots, and ezogabine treatment of 11 patients** *NEUROLOGY-GENETICS*
Millichap, J. J., Park, K. L., Tsuchida, T., Ben-Zeev, B., Carmant, L., Flamini, R., Joshi, N., Levisohn, P. M., Marsh, E., Nangia, S., Narayanan, V., Ortiz-Gonzalez, X. R., Patterson, et al
2016; 2 (5): e96
- **Diagnosis of adenylosuccinate lyase deficiency by metabolomic profiling in plasma reveals a phenotypic spectrum.** *Molecular genetics and metabolism reports*
Donti, T. R., Cappuccio, G., Hubert, L., Neira, J., Atwal, P. S., Miller, M. J., Cardon, A. L., Sutton, V. R., Porter, B. E., Baumer, F. M., Wangler, M. F., Sun, Q., Emrick, et al
2016; 8: 61-66
- **A Potential Role for Glia-Derived Extracellular Matrix Remodeling in Postinjury Epilepsy** *JOURNAL OF NEUROSCIENCE RESEARCH*
Kim, S. Y., Porter, B. E., Friedman, A., Kaufer, D.
2016; 94 (9): 794-803
- **Plasma taurine levels are not affected by vigabatrin in pediatric patients.** *Epilepsia*
Spelbrink, E. M., Mabud, T. S., Reimer, R., Porter, B. E.
2016; 57 (8): e168-72

- **CRTC1 NUCLEAR LOCALIZATION IN THE HIPPOCAMPUS OF THE PILOCARPINE-INDUCED STATUS EPILEPTICUS MODEL OF TEMPORAL LOBE EPILEPSY** *NEUROSCIENCE*
Dubey, D., Porter, B. E.
2016; 320: 57-68
- **Mutations in the Na(+)/citrate cotransporter NaCT (SLC13A5) in pediatric patients with epilepsy and developmental delay.** *Molecular medicine*
Klotz, J., Porter, B. E., Colas, C., Schlessinger, A., Pajor, A. M.
2016; 22
- **Suppressing cAMP response element-binding protein transcription shortens the duration of status epilepticus and decreases the number of spontaneous seizures in the pilocarpine model of epilepsy** *EPILEPSIA*
Zhu, X., Dubey, D., Bermudez, C., Porter, B. E.
2015; 56 (12): 1870-1878
- **INCREASED SENSITIVITY TO KINDLING IN MICE LACKING TSP1** *NEUROSCIENCE*
Mendus, D., Rankin-Gee, E. K., Mustapha, M., Porter, B. E.
2015; 305: 302-308
- **Perineuronal net degradation in epilepsy.** *Epilepsia*
Rankin-Gee, E. K., McRae, P. A., Baranov, E., Rogers, S., Wandrey, L., Porter, B. E.
2015; 56 (7): 1124-1133
- **50 years ago in the journal of pediatrics: convulsive equivalent syndrome of childhood.** *journal of pediatrics*
Maclean, J., Porter, B.
2014; 164 (5): 1050-?
- **Report of a parent survey of cannabidiol-enriched cannabis use in pediatric treatment-resistant epilepsy** *EPILEPSY & BEHAVIOR*
Porter, B. E., Jacobson, C.
2013; 29 (3): 574-577
- **MEF2C Haploinsufficiency features consistent hyperkinesia, variable epilepsy, and has a role in dorsal and ventral neuronal developmental pathways** *NEUROGENETICS*
Paciorkowski, A. R., Traylor, R. N., Rosenfeld, J. A., Hoover, J. M., Harris, C. J., Winter, S., Lacassie, Y., Bialer, M., Lamb, A. N., Schultz, R. A., Berry-Kravis, E., Porter, B. E., Falk, et al
2013; 14 (2): 99-111
- **Focal cortical dysplasia is more common in boys than in girls** *EPILEPSY & BEHAVIOR*
Ortiz-Gonzalez, X. R., Poduri, A., Roberts, C. M., Sullivan, J. E., Marsh, E. D., Porter, B. E.
2013; 27 (1): 121-123
- **Changes in MicroRNA Expression in the Whole Hippocampus and Hippocampal Synaptoneurosome Fraction following Pilocarpine Induced Status Epilepticus** *PLOS ONE*
Risbud, R. M., Porter, B. E.
2013; 8 (1)
- **Persistent decrease in multiple components of the perineuronal net following status epilepticus** *EUROPEAN JOURNAL OF NEUROSCIENCE*
McRae, P. A., Baranov, E., Rogers, S. L., Porter, B. E.
2012; 36 (11): 3471-3482
- **The perineuronal net component of the extracellular matrix in plasticity and epilepsy** *NEUROCHEMISTRY INTERNATIONAL*
McRae, P. A., Porter, B. E.
2012; 61 (7): 963-972
- **Decreased CREB levels suppress epilepsy** *NEUROBIOLOGY OF DISEASE*
Zhu, X., Han, X., Blendy, J. A., Porter, B. E.
2012; 45 (1): 253-263
- **Neurotrophin-3 mRNA a putative target of miR21 following status epilepticus** *BRAIN RESEARCH*
Risbud, R. M., Lee, C., Porter, B. E.
2011; 1424: 53-59

- **Ganglioglioma arising from dysplastic cortex** *EPILEPSIA*
Ortiz-Gonzalez, X. R., Venneti, S., Biegel, J. A., Rorke-Adams, L. B., Porter, B. E.
2011; 52 (9): E106-E108
- **Subependymal Giant Cell Astrocytoma (SEGA) Treatment Update** *CURRENT TREATMENT OPTIONS IN NEUROLOGY*
Campen, C. J., Porter, B. E.
2011; 13 (4): 380-385
- **Group I mGluR-regulated translation of the neuronal glutamate transporter, excitatory amino acid carrier 1** *JOURNAL OF NEUROCHEMISTRY*
Ross, J. R., Ramakrishnan, H., Porter, B. E., Robinson, M. B.
2011; 117 (5): 812-823
- **mRNA for the EAAC1 subtype of glutamate transporter is present in neuronal dendrites in vitro and dramatically increases in vivo after a seizure** *NEUROCHEMISTRY INTERNATIONAL*
Ross, J. R., Porter, B. E., Buckley, P. T., Eberwine, J. H., Robinson, M. B.
2011; 58 (3): 366-375
- **Discrete gamma oscillations identify the seizure onset zone in some pediatric epilepsy patients** *33rd Annual International Conference of the IEEE Engineering-in-Medicine-and-Biology-Society (EMBS)*
Gupta, J. R., Marsh, E. D., Nieh, H. E., Porter, B. E., Litt, B.
IEEE.2011: 3095-3098
- **Aggrecan expression, a component of the inhibitory interneuron perineuronal net, is altered following an early-life seizure** *NEUROBIOLOGY OF DISEASE*
McRae, P. A., Baranov, E., Sarode, S., Brooks-Kayal, A. R., Porter, B. E.
2010; 39 (3): 439-448
- **Interictal EEG spikes identify the region of electrographic seizure onset in some, but not all, pediatric epilepsy patients** *EPILEPSIA*
Marsh, E. D., Peltzer, B., Brown, M. W., Wusthoff, C., Storm, P. B., Litt, B., Porter, B. E.
2010; 51 (4): 592-601
- **Seizures increase cell proliferation in the dentate gyrus by shortening progenitor cell-cycle length** *EPILEPSIA*
Varodayan, F. P., Zhu, X., Cui, X., Porter, B. E.
2009; 50 (12): 2638-2647
- **Topiramate and Adrenocorticotrophic Hormone (ACTH) as Initial Treatment for Infantile Spasms** *JOURNAL OF CHILD NEUROLOGY*
Peltzer, B., Alonso, W. D., Porter, B. E.
2009; 24 (4): 400-405
- **The role of transcription factors cyclic-AMP responsive element modulator (CREM) and inducible cyclic-amp early repressor (ICER) in epileptogenesis** *NEUROSCIENCE*
Porter, B. E., Lund, I. V., Varodayan, F. P., Wallace, R. W., Blendy, J. A.
2008; 152 (3): 829-836
- **Neurogenesis and epilepsy in the developing brain** *EPILEPSIA*
Porter, B. E.
2008; 49: 50-54
- **Comparison of novel computer detectors and human performance for spike detection in intracranial EEG** *CLINICAL NEUROPHYSIOLOGY*
Brown, M. W., Porter, B. E., Dlugos, D. J., Keating, J., Gardner, A. B., Storm, P. B., Marsh, E. D.
2007; 118 (8): 1744-1752
- **Seizures and antiepileptic drugs: Does exposure alter normal brain development ?** *EPILEPSIA*
Marsh, E. D., Brooks-Kayal, A. R., Porter, B. E.
2006; 47 (12): 1999-2010
- **Increased GABA(A)-receptor alpha 1-subunit expression in hippocampal dentate gyrus after early-life status epilepticus** *EPILEPSIA*
Raol, Y. H., Zhang, G., Lund, I. V., Porter, B. E., Maronski, M. A., Brooks-Kayal, A. R.
2006; 47 (10): 1665-1673
- **Dystrophic neuritic processes in epileptic cortex** *EPILEPSY RESEARCH*

-
- Judkins, A. R., Porter, B. E., Cook, N., Clancy, R. R., Duhaime, A. C., Golden, J. A.
2006; 70 (1): 49-58
- **Status epilepticus differentially alters AMPA and kainate receptor subunit expression in mature and immature dentate granule neurons** *EUROPEAN JOURNAL OF NEUROSCIENCE*
Porter, B. E., Cui, X., Brooks-Kayal, A. R.
2006; 23 (11): 2857-2863
 - **Heterogeneous GABA(A) receptor subunit expression in pediatric epilepsy patients** *NEUROBIOLOGY OF DISEASE*
Porter, B. E., Zhang, G. J., Celix, J., Hsu, F. C., Raol, Y. S., Telfeian, A., Gallagher, P. R., Coulter, D. A., Brooks-Kayal, A. R.
2005; 18 (3): 484-491
 - **Fate of newborn dentate granule cells after early life status epilepticus** *EPILEPSIA*
Porter, B. E., Maronski, M., Brooks-Kayal, A. R.
2004; 45 (1): 13-19
 - **Dysplasia - A common finding in intractable pediatric temporal lobe epilepsy** *NEUROLOGY*
Porter, B. E., Judkins, A. R., Clancy, R. R., Duhaime, A., Dlugos, D. J., Golden, J. A.
2003; 61 (3): 365-368
 - **Disorders of cortical development and epilepsy** *ARCHIVES OF NEUROLOGY*
Porter, B. E., Brooks-Kayal, A., Golden, J. A.
2002; 59 (3): 361-365
 - **Myelin and disorders that affect the formation and maintenance of this sheath** *MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES RESEARCH REVIEWS*
Porter, B. E., Tennekoon, G.
2000; 6 (1): 47-58
 - **Distinct structures and functions of related pre- and postsynaptic carbohydrates at the mammalian neuromuscular junction** *MOLECULAR AND CELLULAR NEUROSCIENCE*
Martin, P. T., Scott, L. J., Porter, B. E., Sanes, J. R.
1999; 13 (2): 105-118
 - **DISTINCT ADHESIVE PROPERTIES OF CILIARY AND CHOROID NEURONS FROM THE AVIAN CILIARY GANGLION** *JOURNAL OF NEUROBIOLOGY*
Porter, B. E., Sanes, J. R.
1995; 28 (3): 381-390
 - **A MOTONEURON-SELECTIVE STOP SIGNAL IN THE SYNAPTIC PROTEIN S-LAMININ** *NEURON*
Porter, B. E., Weis, J., Sanes, J. R.
1995; 14 (3): 549-559
 - **GATED MIGRATION - NEURONS MIGRATE ON BUT NOT ONTO SUBSTRATES CONTAINING S-LAMININ** *DEVELOPMENTAL BIOLOGY*
Porter, B. E., Sanes, J. R.
1995; 167 (2): 609-616
 - **S-LAMININ - MAPPING TO MOUSE CHROMOSOME-9 AND EXPRESSION IN THE LINKED MUTANTS TIPPY AND DUCKY** *GENOMICS*
Porter, B. E., JUSTICE, M. J., Copeland, N. G., Jenkins, N. A., Hunter, D. D., Merlie, J. P., Sanes, J. R.
1993; 16 (1): 278-281
 - **PRIMARY SEQUENCE OF A MOTOR NEURON SELECTIVE ADHESIVE SITE IN THE SYNAPTIC BASAL LAMINA PROTEIN S-LAMININ** *CELL*
Hunter, D. D., Porter, B. E., BULLOCK, J. W., Adams, S. P., Merlie, J. P., Sanes, J. R.
1989; 59 (5): 905-913
 - **RESTORATION OF CELL-VOLUME AND THE REVERSAL OF CARBOHYDRATE TRANSPORT AND GROWTH-INHIBITION OF OSMOTICALLY UP-SHOCKED ESCHERICHIA-COLI** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
ROTH, W. G., Porter, S. E., LECKIE, M. P., Porter, B. E., DIETZLER, D. N.
1985; 126 (1): 442-449