

## CURRICULUM VITAE

**JEFFREY STEPHEN SCHWEITZER**

**Division of Neurosurgery  
Wright State University-Premier Health Partners Clinical Neuroscience Institute  
30 East Apple Street, Suite 6257  
Dayton, OH 45409**

**Date of Birth: March 7, 1958**

**Place of Birth: White Plains, NY, USA**

**Current Appointments: Chief, Division of Neurosurgery 1/13-Current  
WSU-PHP Clinical Neuroscience Institute  
Professor of Neurosurgery  
Wright State University Boonshoft School of Medicine 1/13-Current  
Director, Epilepsy and Functional Neurosurgery  
Programs, Miami Valley Hospital,  
Dayton, Ohio 1/13-Current**

**Former Appointments: Private Practice, Chaparral Medical Group, 5/12-1/13  
Pomona, California  
Director, Stereotactic and Functional Neurosurgery  
Program 7/99-1/12  
Kaiser Permanente Los Angeles Medical Center  
Assistant Professor of Neurological Surgery 2196-6/99  
Northwestern University Medical School  
Co-Director, Epilepsy and Movement Disorders Program  
Northwestern Memorial Hospital 2/96-6/99  
Clinical Assistant Professor of Neurosurgery 7194-2/96  
Director, Epilepsy and Functional Neurosurgery Program  
University of California, Davis—East Bay 7194-2196**

<b>Education: Pacific Neuroscience Institute</b>	<b>Fellowship in Functional Stereotactic Neurosurgery 7/94-6/95</b>
<b>Yale University School of Medicine</b>	<b>Fellowship in Epilepsy Surgery 7/93-6/94</b>
<b>UCLA Medical Center</b>	<b>Residency, Neurosurgery 7/88-6/93</b>
<b>UCLA Medical Center</b>	<b>Internship in Surgery 6/86-6/88</b>

Harvard Graduate School of Art and Sciences	PhD in Cell and Developmental Biology	6/81-6/86
Harvard Medical School	MD	9/79-6/86
Harvard College	AB cum laude in Biology	9/75-6/119

**Lang' Kes:**

Chinese (Mandarin)  
French (reading)

**Licensures and Certifications:**

Diplomate, American Board of Neurological Surgery	11/98
California Physician and Surgeon	active
Illinois Physician and Surgeon	inactive
Ohio Physician and Surgeon	active
DEA	active

**Research Training:**

Neurosurgical research laboratories, Yale (postdoctoral) Neurophysiology and ionic mechanisms of epilepsy in rat models and resected human tissue	7/93-6/94
Laboratory of Dr. F. Edward Dudek, UCLA (postdoctoral) Basic neurophysiology of epilepsy in rat models Epileptiform activity and the extracellular ionic environment	7/91-6/92
Laboratory of Dr. Marc A. Dichter, Harvard (graduate studies) Surface antigens of neuronal and muscle cells in development Neurophysiology of cortical, spinal cord and brainstem neurons in culture Neurophysiology of central and peripheral catecholaminergic neurons in culture	1/81-10/84
Laboratory of Dr. Richard L. Sidman, Harvard Quantitative neuroanatomy of cerebellum in mutant mice	10/79-9/80
Laboratory of Dr. Farish Jenkins, Harvard Vertebrate paleontology (Mesozoic <u>Mammals</u> )	9/75-10/76

**Honors and Awards:**

Merritt-Puna/um Fellowship, Epilepsy Foundation of America	1993
Junior Investigator Award, American Epilepsy Society	1992
Visiting Lecturer, Beijing Neurosurgical Institute	1991
Medical Scientist Training Program (NM) awardee	1981

**Professional Memberships:**

American Association of Neurological Surgeons

American Epilepsy Society

Congress of Neurological Surgeons

**Committee and Board Appointments:**

Research Committee, Kaiser Los Angeles Medical Center 2002

Professional Advisory Board, CURE 1998

(Citizens United for Research on Epilepsy)

Scientific Advisory Committee, Northwestern 1997

Memorial Hospital Center for Clinical Research

Chair, Feinberg Clinical Neuroscience Research Institute 1997

Epilepsy Focus Group

Professional Advisory Board,

1996

Epilepsy Foundation of Greater Chicago

Editorial Board, UNC Neurosurgery Email List 1996

Faculty Expenses Committee, Northwestern University Medical School 1997

Department of Surgery

OR Design Executive Committee, Northwestern Memorial

Hospital

1996

Surgical Chiefs and Chairmen Committee, Northwestern

Memorial Hospital

1996

Executive Council, International Committee, Congress of 1996

Neurological Surgeons

**Invited Lectures and Conferences**

"Surgical Treatment of Epilepsy," Wright State University Neuroscience Nov. 14, 2012

Grand Rounds

"Future Directions in Deep Brain Stimulation," UCSD Neuroscience Apr. 1, 2011

Grand Rounds

"Update in Movement Disorder Surgery," Kaiser CME Course Mar. 30, 2007

"Gap Junctions, Non-Synaptic Mechanisms, and Epileptogenesis," April 24, 2001

Spring Epilepsy Research Conference, Grand Cayman, BWI

"Epilepsy Surgery in Modern Neurosurgical Practice," Dec. 29, 1999

Sri Lankan North American Medical Society Annual Meeting,

Colombo, Sri Lanka

"Pallidotomy and Other Surgical Treatments for Movement Disorders," Nov. 3, 1999

Congress of Neurological Surgery seminar

"Intracranial Monitoring for Epilepsy," Oct. 31, 1999

Congress of Neurological Surgery hands-on course

"pH Modulation of Non-synaptic Seizure Propagation," Dec. 8, 1998

American Epilepsy Society participatory roundtable

"Intracranial Monitoring for Epilepsy," Oct. 3, 1998

Congress of Neurological Surgery hands-on course

"Surgery for Temporal Lobe Epilepsy," Sep. 30, 1997

<b>Congress of Neurological Surgery seminar</b>	
<b>"The Surgical Treatment of Epilepsy,"</b>	
<b>Clinical Update in Epilepsy, Northwestern University, Chicago IL</b>	<b>Jun. 12, 1999</b>
<b>Epilepsy Society of Northeast Illinois, Libertyville, IL</b>	<b>Oct. 16, 1997</b>
<b>Swedish Covenant Hospital, Chicago IL</b>	<b>Feb. 5, 1997</b>
<b>Northwest Community Hospital, Arlington Heights IL</b>	<b>Oct. 17, 1996</b>
<b>Elmhurst Memorial Hospital, Elmhurst IL</b>	<b>Sep. 17, 1996</b>
<b>Gottlieb Memorial Hospital, Chicago IL</b>	<b>Aug. 12, 1996</b>
<b>Epilepsy League of the East Bay, Oakland, CA</b>	<b>Jan. 24, 1995</b>
<b>Scientific Committee and Co-Chair, Section on</b>	
<b>Pathophysiology, "Epilepsy—A Developing World" conference</b>	<b>1996</b>
<b>(continuing joint project of the David Lewis Centre, Cheshire,</b>	
<b>UK and the Ministry of Health, China)</b>	
<b>"Epilepsy—A Substrate-Based Classification," Conference on</b>	<b>Apr. 24, 1996</b>
<b>Epilepsy in the Developing World, Beijing</b>	
<b>"Invasive Electrophysiological Monitoring,"</b>	<b>Feb. 8, 1996</b>
<b>University of California, San Francisco Epilepsy Program</b>	
<b>Visiting Professor, Sir Run Run Shaw Hospital, Zhejiang Medical</b>	<b>Feb-Apr. 1995</b>
<b>College Department of Neurosurgery, Hangzhou, China</b>	
<b>"Synaptic and Nonsynaptic Mechanisms of Seizure Onset,"</b>	<b>July 7, 1994</b>
<b>University of California, San Francisco Epilepsy Program</b>	
 <b><u>Other Teaching Activities</u></b>	
<b>Surgery for Parkinson's Disease, Internal Medicine Grand Rounds,</b>	<b>Dec. 2, 2003</b>
<b>Kaiser West Los Angeles Medical Center</b>	
<b>Surgical Care of Epilepsy and Parkinson's Disease:</b>	
<b>Staff Nurse Educational Seminar</b>	<b>Apr. 27, 2000</b>
	<b>Oct. 21, 1999</b>
<b>Grand Rounds, Neurosurgery: Surgical Treatment of Epilepsy</b>	<b>Jan. 28, 1999</b>
<b>Didactic Rounds, Surgery Clinical Clerkship:</b>	<b>Feb.</b>
<b>23, 1999</b>	
<b>Modern Management of Head Injury</b>	<b>Oct. 27, 1998</b>
<b>Innovations in Perioperative Practice: Surgery for Movement Disorders</b>	<b>Aug. 8, 1998</b>
<b>Grand Rounds, Neurosurgery: Advances in Surgery for Movement</b>	<b>Feb. 16, 1998</b>
<b>Disorders</b>	
 <b>Graduate Course in Clinical</b>	
<b>Neuroscience: Neurophysiology of Seizures</b>	<b>Feb. 16, 1998</b>
<b>Grand Rounds, Medicine: Surgery for Movement Disorders</b>	<b>Oct. 3, 1997</b>
<b>M2 Physical Diagnosis course</b>	<b>February—</b>
<b>May, 1997</b>	
<b>Neurology interactive course: Movement Disorders</b>	<b>Apr. 23, 1997</b>
<b>Grand Rounds, Neurology: Surgical Treatment of Epilepsy</b>	<b>Feb. 25, 1997</b>
<b>Grand Rounds, Neurology: Surgery for Movement Disorders</b>	<b>Oct. 22, 1996</b>
<b>Neurology interactive course: Brain biopsies</b>	<b>Apr. 19, 1996</b>
<b>Grand Rounds, Neurosurgery: Surgical Treatment of Epilepsy</b>	<b>March 25, 1996</b>
<b>Neurology didactic course: Brain tumors</b>	<b>March 6,</b>

## Publications:

### *Reereed Journal Articles*

1. Lee T, Mane S, Eid T, Zhao H, Lin A, Guan Z, Kim JH, Schweitzer J, King-Stevens D, Weber P, Spencer SS, Spencer DD, deLanerolle NC. Gene expression in temporal lobe epilepsy is consistent with increased release of glutamate by astrocytes. *Mol. Med* 2007, 13(1-2): 1-13.
2. Eid T, Brines ML, Cerami A, Spencer DD, Kim J, Schweitzer JS, Ottersen OP, deLanerolle NC. Increased Expression of Erythropoietin Receptor on Blood Vessels in the Human Epileptogenic Hippocampus with Sclerosis. *Journal of Neuropathology and Experimental Neurology* 2004, 63(1): 73-83.
3. Chayasirisobhlon S., Chayasirisobhon W.V., Koulouris S., Gurbani S.G., Enos B., Hwang J., Schweitzer JS., Callan L., Principe K., Earnest K. Vagus Nerve Stimulation Therapy for Drug-resistant Epilepsy. *Acta Neurologica Taiwanica* 2004, 12(3): 123-129.
4. Schweitzer JS, H Wang, Z.Q. Xiong, J.L. Stringer. pH sensitivity of non-synaptic field bursts in the rat dentate gyrus. *J Neurophysiol.* 2000, 84: 927-933.
5. Patrylo PR, Schweitzer JS, Dudek FE. Abnormal responses to perforant path stimulation in the dentate gyrus of slices from kainate-induced epileptic rats with mossy fiber reorganization. *Epilepsy Res.* 1999 36(1):31-42.
6. Keller T, Schweitzer JS, Helfend LK, Chappell ET. Treatment of progressive cervical spinal instability secondary to hydatid disease: case report. *Spine*, 1997 22(8): 915-919.
7. Patrylo PR., Copus, AJ, Schweitzer JS and Dudek FE. Multiple-unit recordings during slow field-potential shifts in low-[Ca<sup>2+</sup>] solutions in rat hippocampal and cortical slices. *Neuroscience*, 1996, 74:107-118.
8. Schweitzer JS, Williamson A. Relationship between synaptic activity and prolonged field bursts in the rat dentate gyrus in vitro. *J Neurophysiol*, 1995, 74(5):1947-1952.
9. Patrylo PR, Schweitzer JS, Dudek FE. Potassium-dependent prolonged field bursts in the dentate gyrus: Effects of extracellular calcium and amino acid receptor antagonists. *Neuroscience*, 1994, 61(1):13-19.
10. Schweitzer JS, Chang BS, Madsen P, Vinuela F, Marroquin CE, Martin NA and Vinters HV. The pathology of arteriovenous malformations of the brain treated by embolotherapy. II. Results of embolization with multiple agents. *Neuroradiology*, 1993, 35(6): 468-74.

11. Schweitzer JS, Batzdorf U. Ependymoma of the filum terminate and cauda equina--diagnosis, treatment and outcome in fifteen patients. *Neurosurgery*, 1992, 30: 202-207.
12. Schweitzer IS, Patrylo P, Dudek FE. Prolonged field bursts in the dentate gyrus: dependence on low calcium, high potassium and nonsynaptic interactions. *J Neurophysiol*, 1992, 68: 2016-2025.
13. Roper SN, Mena I, King WA, Schweitzer J, Garrett K, Mehringer CM, McBride DM. An analysis of cerebral blood flow in acute closed head injury using Tc-99m HMPAO SPECT and CT. *J Nuclear Med*, 1991, 32:1684-1687.
14. Schweitzer JS, Dichter MA, Kaufman SJ. Fibroblasts modulate expression of Thy-1 on the surface of skeletal myoblasts. *Exp Cell Res*, 1987, 172: 1-20.
15. Schweitzer JS, Kaufman SJ, Dichter MA. Differential expression and modulation of Thy-1 on myoblast clones. *Exp Cell Res*, 1987, 172: 21-31.
16. Brown RH Jr., Schweitzer JS, Audhya T, Goldstein G, Dichter MA. Immunoreactive thymopoietin in the mouse central nervous system. *Brain Res*, 1986, 402: 156-162.
17. Rosenberg PA, Schweitzer JS, Dichter MA. Effects of norepinephrine on rat neocortical neurons in dissociated cell culture. *Brain Res*, 1985, 344: 369-372.
18. Brown RH Jr., Schweitzer JS, Dichter MA. Expression of the Thy-1 antigen in long-term cultures of embryonic mouse spinal cord. *Brain Res*, [1984, 296: 87-91.

*Book Chapters and Non-Refereed Papers*

1. Chayasirisobhon, S., Koulouris, S., Parker, E., Ngoc, L., Enos, B., Callan, L., Earnest, K., Hwang, J., Principe, K., Schweitzer, J.S. Vagus Nerve Stimulation for Refractory Epilepsy. *Permanente Journal* 5(4): 21-26, 2003.
2. Schweitzer JS. Editor, Section on Stereotactic and Functional Neurosurgery, *Textbook of Neurological Surgery*, H. Batjer and C. Loftus, Lippincott Williams and Wilkins, Philadelphia, 2003.
3. Schweitzer, S. Thalamotomy and Pallidotomy for Movement Disorders. In *Textbook of Neurological Surgery*, IL Batjer and C. Loftus, Lippincott Williams and Wilkins, Philadelphia, 2003 pp. 2697-2705.

4. Schweitzer, JS. Sympathectomy for Hyperhidrosis. In *Textbook of Neurological Surgery*, H. Batjer and C. Loftus, Lippincott Williams and Wilkins, Philadelphia, 2003, pp. 2777-2782.
5. Schweitzer JS. Surgical Treatment of Parkinson's disease. Guest editor, *Techniques in Neurosurgery*, 1999, (5)1.
6. Schweitzer JS, Dudek FE. Seizures, glia, and extracellular space. In *Contemporary Neuropharmacology: Pathogenesis. Neurotransmitters and Drug Action*, Gross RA and Greenamyre IT eds., vol. 1, *Epilepsy and Drug Mechanisms*, Humana, 1998.
7. Schweitzer IS, Spencer DD. Surgical treatment of epilepsies due to congenital, traumatic, infectious and uncertain etiologies. In *The Treatment of Epilepsy*, SD Shorvon, FE Dreifuss, DR Fish eds., Blackwell Science Inc., Oxford, 1996, chapter 52.
8. Dudek FE, Obenaus A, Schweitzer IS, Wuarin JP. Functional significance of hippocampal plasticity in epileptic brain: Electrophysiological changes of the dentate granule cells associated with mossy fiber sprouting. *Hippocampus*, 1994, 4(3):259-265.
9. Schweitzer JS, Bergsneider M, Becker DP. Intracranial pressure monitoring in the perioperative patient. In *Anesthesia and Neurosurgery*, JE Cottrell and DS Smith, editors, Mosby Year Book, 1994, pp 117-135.
10. Schweitzer IS. Modulation of Thy-1 Antigen Expression During Myogenesis In Vitro. Thesis, Harvard University, 1985.

#### *Abstracts*

1. Chayasiribhon S, Cahan L, Choi S, Enos B, Hwang J, Lin M, Schweitzer I, Spurgeon B, Stuckert E, Gurbani S. Efficacy of vagus nerve stimulation in patients on unchanged dose of antiepileptic drug regimen 2 year outcome at a community medical center. American Epilepsy Society Annual Meeting, 2012.
2. Hwang J, Enos B, Cahan L, Schweitzer J, Chayasiribhon S, Earnest K, Spurgeon B, Gurbani S, Sindhu H, Lin M. Outcome of epilepsy surgery in older patients. American Epilepsy Society Annual Meeting, 2012.
3. Schweitzer IS. Bilateral globus pallidus stimulation for treatment of Meige syndrome. Congress of Neurological Surgery Annual Meeting, 2000.
4. Schweitzer IS, Wang H. pH-dependent synchronization of field bursts in human hippocampal slices. *Epilepsia* 1999, 40 (S7): 37-38.

5. **Schweitzer IS. Use of a stereotactic workstation for planning of deep brain stimulator implantation. American Association of Neurological Surgeons Annual Meeting, 1999.**
6. **Wang H, Schweitzer is. pH sensitivity of non-synaptic seizure propagation. Congress of Neurological Surgery Annual Meeting, 1998.**
7. **Schweitzer IS, Patrylo PR, Williamson A. Extracellular pH and nonsynaptic bursts. Epilepsia 1998, 39(Suppl. 6), 19.**
8. **Meyer JR, Gitelman DR, Schweitzer 3, Callahan C, Parrish T, Batjer H, Russell El, Mesulam M-M. Reorganization of dominant hand motor function associated with arteriovenous malformation—a functional MRI study. Soc. for Neuroscience abstracts 576.12, 1996.**
9. **Schweitzer IS, Spencer DD. Epilepsy—A substrate-based classification. Epilepsy-A Developing World, 21:P1A1, Beijing, 1996.**
10. **Lee S, Schweitzer JS, Williamson A. Glial cells may contribute to non-synaptic field bursts in the rat. Epilepsia, [995, 36(Suppl.3), 543.**
11. **Schweitzer IS, Lee S, Kato K, Spencer DD, Williamson A. Propagation of non-synaptic field bursts in rat dentate gyms: the role of glia and slow oscillatory field potentials. Epilepsia, 1995, 36(Suppl. 4):62.**
12. **Lee 5, Schweitzer IS, Williamson A. Synaptic activity initiates nonsynaptic bursts in rat dentate gyms. Epilepsia, 1994, 35 (Suppl.).**
13. **Schweitzer 35, Lee S, Williamson A, Spencer DD. Prolonged field bursts in the human hippocampus in vitro. Epilepsia, 1994, 35 (Suppl. 8):40 .**
14. **Chang BS, Schweitzer JS, Vinters HV. Tissue reaction to multiple embolization agents in tumors and AVMs. Amer. Soc. Clin. Pathol., New Orleans 1992.**
15. **Schweitzer JS, Dudek FE. An in vitro analysis of the dentate gyms as a gate for hippocampal seizures: mechanisms, ionic dependence, and altered function in a chronic seizure model. Congress of Neurological Surgeons Annual Meeting, 1992 .**
16. **Schweitzer 3S, Dudek FE. Threshold for maximal dentate activation in vitro is altered in kainate-treated rats. Epilepsia, 1992, 33(Suppl.): 32.**
17. **Schweitzer IS, Patrylo PR, Dudek FE. Maximal dentate activation in vitro. Epilepsia, 1992, 33(Suppl.): 33.**
18. **Schweitzer IS, Vinters HV, Vinuela F, Martin NA. The use of multiple agents in pre-operative embolization of encephalic AVMs. I Neuropath Exp Newel 1990, 49:282.**



19. **Rosenberg PA, Schweitzer JS, Dichter MA. Norepinephrine increases synaptic activity in rat cerebral cortex in dissociated cell culture. Soc Neurosci Abstr 1984, 24.10.**
20. **Schweitzer JS, Brown RH, Audhya T, Goldstein G, Dichter MA. Detection of immunoreactive thymopoietin in mouse central nervous system. Soc Neurosci Abstr, 1984, 210.8.**
21. **Brown RH, Perry L, Schweitzer JS, McKnight P, Greene M, Dichter MA. Monoclonal antibodies against cellular elements of mouse spinal cord. Neurology, 1982, 32(4 Part 2):A87.**
22. **Brown RH Jr., Schweitzer JS, Dichter MA. Expression of the Thy-1 antigen in long-term cultures of embryonic mouse spinal cord. Soc Neurosci Abstr, 1981, 101.10.**



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**November 13, 1998**

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