

Curriculum Vitae

2024

Thomas H. Swanson, MD, FAES

Fellow of the American Epilepsy Society
Diplomate American Board of Psychiatry and Neurology
Diplomate, American Board of Clinical Neurophysiology

Education:

2006-08	Cleveland Marshall School of Law
M.D. 1986	Wayne State University School of Medicine, Detroit, MI
1980-82	University of Houston, Houston, TX, Graduate School, Marine Biology
B.S., 1979	Eastern Michigan University, Ypsilanti, MI, Major Biology, Minor Psychology
1975-77	University of Houston, Houston, TX

Training:

1990-92	Post-Doctoral Research Fellowship, University of Pennsylvania, Philadelphia, PA, Laboratory of Marc Dichter, MD, PhD
1990-92	Clinical Epilepsy Fellowship, University of Pennsylvania Graduate Hospital Comprehensive Epilepsy Program, Philadelphia, PA
1987-90	Neurology Residency, Mayo Clinic, Rochester, MN
1986-87	Internal Medicine Internship, Henry Ford Hospital, Detroit, MI

Medical License and Board Certification:

Active

2018	Michigan
2008	Montana
1996	Board Certified, American Board of Clinical Neurophysiology
1996-2006	Board Certified, American Board of Psychiatry and Neurology, added qualifications in clinical neurophysiology, June, 1996
1992	Board Certified, American Board of Psychiatry and Neurology (Neurology)

Memberships and Services:

2024	Scientific Advisory Workgroup member (SAW), Michigan Cannabis Regulatory Agency
2023-	Advisory Board member, Northwest VA Epilepsy Centers of Excellence which includes regional centers in Chicago, Madison, Minneapolis, Seattle, and Portland
2017-2020	Board of Directors, Winter Conference on Brain Research
2017-2019	Scientific Program Committee, Winter Conference on Brain Research,
2015-	Chairman, Business Committee, Consortium of Private Epilepsy Centers,
2013-16	Scientific Program Committee, American Epilepsy Society,
2013-16	Advocacy Committee, American Epilepsy Society
2013-15	Corporate Affairs Committee, American Epilepsy Society
2013-14	Board of Directors, Idaho Epilepsy Foundation
2012,16	Neurology On The Hill participant, met with Idaho Senator Capo, lobbied for neuroscience research.
2011-14	Regional Work Group Member Institute of Translational Health Sciences, University of Washington Medical School
2010 to	Palatucci Fellow, American Academy of Neurology, Advocacy Research Fellowship learned how to drive advocacy using influence and process
2010-12	Team head injury physician, Arizona Diamondbacks organization minor league team the Missoula Osprey

- 2010- Founding Board Member, Epilepsy Association of Montana
- 2010- Chairman, Professional Advisory Board, Epilepsy Association of Montana
- 2009-2012 St. Patrick Hospital / Community Medical Center joint Institutional Review Board
- 2009-2011 Scientific Program Committee, American Epilepsy Society
- 2009- UCB Pharmaceuticals, Professional Advisory Board and Speakers Board
- 2009-16 Speakers Board, Cyberonics (now Liva Nova)
- 2009-13 Professional Advisory and Speakers Board, Glaxo-Smith-Kline
- 2007-10 Facilities Chairman and Executive Committee member, Winter Conference on Brain Research
- 2006-09 Board Trustee, Epilepsy Association of Northeast Ohio
- 2002-04 Board of Directors member, Winter Conference on Brain Research
- 2002-05 Vestry member, Grace Episcopal Church, Sandusky, Ohio
- 2000-09 Professional Advisory Board, Michigan Chapter, Epilepsy Foundation of America
- 1996-1998 IRB committee member, Medical College of Ohio
- 1996-1998 IACUC (animal use) committee member, Medical College of Ohio
- 1994-1996 IRB committee member, Cleveland Clinic
- 1994-1996 IACUC (animal use) committee member, Cleveland Clinic

Member American Epilepsy Society

Past Member American Association for the Advancement of Science

Past Member American Medical Association

Past Member American Academy of Neurology

Past Member Society for Neuroscience

Past Member American Physiological Society

Doris A. Flynn Foundation Epilepsy Fellowship Selection Committee

Cleveland Clinic Research Program Committee

Ad Hoc Reviewer, VA Merit Review Board

Field Reviewer, *Brain Research*

Field Reviewer, *J. Clinical Neurophysiology*

Field Reviewer, *Epilepsia*
Field Reviewer, *J. Neuroscience Methods*
Field Reviewer, *J. Neurosurgery*

Academic and Professional Positions:

2018-2019 **Owner**, Lucid Neurology Southfield, MI (sold 2019)

2017- **CEO and Chief Science Officer**, Sativa Science Inc.

2016 Fellow, American Epilepsy Society

2013-2018 **CEO**, Idaho Neurology

2011-2013 **Board Partner** Frontier Health Information Technology, Cody WY

2010-2013 **Medical Director**, Clinical Neurophysiology, Community Medical Center, Missoula, MT

2009- **Faculty Affiliate**, University of Montana, Center for Structural and Functional Neuroscience

2009- **Medical Director**, Montana Comprehensive Epilepsy Center

2009- **CEO**, Montana Neurology

2008-2009 Montana Neurobehavioral Associates

2004-2008 **Research Associate**, Department of Neuroscience, Oberlin College, Oberlin, OH

1998-2010 **CEO**, Midwest Neuroscience Inc.

1998-2001 **Adjunct Associate Professor of Psychology**, Bowling Green State University, Bowling Green, OH

1998-2005 **President**, Curtis Research Institute (501c3)

1998-01 **Medical Director**, Mercy Epilepsy Institute, Toledo, OH

1996-98 **Associate Professor, Department of Neurology, Medical College of Ohio**, Toledo, OH

1996-98 **Medical Director**, Comprehensive Epilepsy Center, Medical College of Ohio, Toledo, OH

- 1996-98 **Medical Director**, Neurodiagnostic Services, Medical College of Ohio, Toledo, OH
- 1994-96 **Assistant Professor of Neurology**, The Ohio State University Medical School, Columbus, OH
- 1993-96 **Clinical Associate**, Department of Neurology, The Cleveland Clinic Foundation, Cleveland, OH
- 1992-93 **Assistant Professor of Neurology**, Medical College of Pennsylvania, Philadelphia, PA
- 1992-93 **Medical Director**, Mid-Atlantic Regional Epilepsy Center, and EEG Laboratory, Philadelphia, PA
- 1990-92 **Post-Doctoral Research Fellow**, University of Pennsylvania, Philadelphia, PA
- 1989-90 **Senior Resident Associate**, Mayo Clinic, Rochester, MN
- 1980-82 **Graduate Teaching Assistant**, Department of Biology, University of Houston, Houston, TX
- 1980 **Graduate Teaching Assistant**, Department of Biology, Eastern Michigan University, Ypsilanti, MI

Awards and Honors:

- 2022 Outstanding Leadership Award for “Innovation in Technology” as the CEO of Sativa Science, Internet 2.0 Conference
- 2010 Western Division Nastar Giant Slalom Nationals Qualifier, 52 year-old age group.
- 2007 Western Division Nastar Giant Slalom Regional Qualifier, 49 year-old age group.
- 2000 Six-time Smitty Stevens Annual Memorial Nastar, Race Winner, Winter Conference on Brain Research.
- 1993 Clinical Investigator Development Award, National Institutes of Health
- 1993 Doris Flynn Fellowship, The Cleveland Clinic Foundation
- 1992 Grass Foundation Neurophysiology Fellowship, The University of Pennsylvania
- 1990 Dana Neuroscience Fellowship, The University of Pennsylvania

1987. Neurology Residents' Epilepsy Research Competition Award, Abbott Pharmaceuticals, "*The Role of Adenosine in Epilepsy*".
1988. G. Milton Shy Award from the American Academy of Neurology for essay on *Creutzfeldt-Jakob Disease*. The highest neurology award in North America given to a medical student
- 1986 National Dean's List, Wayne State University Medical School.
- 1985 National Dean's List, Wayne State University Medical School
- 1972 Midwest American Champion, professional sled racing, 5-dog class
- 1973 Midwest American Champion, professional sled dog racing, 7-dog class
- 1973 Third place in the Can-Am championship race
- 1974 Midwest American Champion, professional sled dog racing, 7-dog class.
- 1974 Second place in the Can-Am championship race.

Grants and Research Support:

- 2012 P.I. :UCB SP 0980; A Prospective, Multinational, Open-Label, Single Arm, Explorative Study to Evaluate the Tolerability and Efficacy of Lacosamide when Added to Levetiracetam with Withdrawal of the Concomitant Sodium Channel Blocking Antiepileptic Drug in Subjects with Uncontrolled Partial-Onset Seizures.
- 2011 NIH R25DA033032; Big Sky Brain project, K-12 educational grant; co-investigator, Missoula, MT.
- 2010 P.I. Supernus 801P301: Multicenter, Double-Blind, Randomized, Placebo-Controlled, Three-Arm, Parallel Group Study to Evaluate the Efficacy and Safety of Oxcarbazepine Extended-Release as adjunctive Therapy in Subjects with Refractory Partial Seizures due to Epilepsy
- 2010 P.I. Supernus 801P302: Multicenter, Open-Label Extension Study to Evaluate the Long-Term Safety and Tolerability of Oxcarbazepine Extended-Release as Adjunctive Therapy in Subjects with Refractory Partial Epilepsy.
- 2000-04 Curtis Research Institute, principal investigator, \$30,000 direct costs, *adeno-associated virus vector transduction in rat brain*.
- 1996-99 NIH RO1 #NS33539, co-investigator, \$66,321.00 total costs, *Human A1-Adenosine Receptor Action in Brain*.
- 1994-99 NIH #K08NS01705-01A1, principal investigator, \$414,450.00 total costs, *The Role of Adenosine in Epilepsy*

- 1996-97 Abbott Laboratories, principal investigator, \$43,920.00 direct costs, *Safety and Efficacy of tiagabine HCL as Adjunctive Treatment*
- 1997-98 Abbott Laboratories, principal investigator, \$35,880.00 direct costs, *Safety and Efficacy of tiagabine HCL as Adjunctive Treatment-open label extension*
- 1997-98 Glaxo-Wellcome, co-investigator, \$26,698.00 direct costs, *Lamotrogine or Valproate/Carbamazepine withdrawing to monotherapy*
- 1992-93 Grass Foundation Neurophysiology Fellowship, \$30,000.00 total costs
- 1990-92 Epilepsy Foundation of America, Research Grant, \$25,000.00 total costs, *The Role of Adenosine in Brain Function*
- 1990-92 **Charles Dana Neuroscience Fellowship**, \$80,000.00 total costs, sponsored by Marc Dichter, MD, PhD, through the David Mahoney Institute of Neuroscience, University of Pennsylvania, Philadelphia, PA

Invited Lectures (Partial List)

Current Trends in Clinical Cannabinoid Molecule Development, chairman of a short course presented at the Winter Conference on Brain Research, Breckenridge, CO, January 2024

Use of Cannabinoids in Neurologic Disease, presented to Department of Neurology Grand Rounds, Wayne State University, Detroit, MI. 10-4-19

Epilepsy in the Wild West; Presented to Cambridge University Department of Neurology Faculty, London, England, July 19, 2016

“Recent Advances in Epilepsy” presented at the University of Montana Recent Advances in Clinical Medicine” symposium 2012

University of Washington, Update on the Northwest Consortium of Epilepsy Centers; at “The Northwest Regional Approach to Epilepsy Management” conference, September 14, 2012.

Fundamentals of Critical Care: Neurological Support; Community Medical Center 5-31-12

Neuromonitoring in Critical Care; April, 2012; Community Medical Center

Blast Brain Injury in Deployed Soldiers: "From Battlefield to Bench"; March, 2012; Missoula Montana Public Lecture

Montana Neuroscience Foundation invited public lecture; 10-14-09; “Epilepsy Diagnosis, Treatments, and New Research”

Saint Patrick Hospital Grand Rounds, 4-20-09 “Treatment of TIA and Stroke”.

Michigan State University, Department of Neurology Grand Rounds, 11/02; *Epilepsy, Diagnosis and Treatment*

Neurobiology Seminar Series, Department of Anatomy and Physiology, Medical College of Ohio, *What’s new with adenosine A1 receptors*, September 1996.

Faculty, Comprehensive Clinical Neurophysiology Annual Course, Cleveland Clinic, 1995, 1996, 1997, 1998, 1999 *Synaptic Transmission & Physiologic Basis of the EEG*.

Seventh Annual Cleveland Clinic-Bethel Epilepsy Symposium, 1996: “Etiologies of the Epilepsies”

Bibliography:

Original Papers:

1. Barraco, R. A., T. H. Swanson, J.W. Phillis, and R. E. Berman. 1984. Anticonvulsant effects of adenosine analogues on amygdaloid-kindled seizures in rats. *Neurosci. Lett.* 46:317-322.
2. Phillis, J.W., T. H. Swanson and R. A. Barraco. 1984. Interactions between nifedipine and adenosine in the rat cerebral cortex. *Neurochem. Int.* 6:693-699.
3. Swanson, T. H. and C. L. Green. 1986. Nifedipine: more than a calcium channel blocker. *Gen Pharmac.* 17(3):255-260.
4. Swanson, T. H., P. L. Zinkel and P. L. Peterson. 1987. Bilateral anterior cerebral artery occlusion in an alcohol abuser with sickle-cell trait. *Henry Ford Hosp. Med. J.* 35(1):67-70.
5. Swanson, T. H. 1987. The clinician’s guide to Creutzfeldt-Jakob disease, *Henry Ford Hosp. Med. J.* 35(1):76-83.
6. Swanson, T. H. and J. W. Phillis. 1987. Progesterone in seizure therapy, *Neurology.* 37:1433.
7. Swanson, T. H. and J. W. Phillis. 1988. Effects of the muscurinic antagonists pirenzepine and gallamine on spontaneous and evoked responses of rat cerebral cortical neurons. *Br. J. Pharmac.* 94:192-198.
8. Cascino, G. D., B. Westmoreland, T. H. Swanson and F. W. Sharbrough. 1991. Seizure-associated speech arrest in elderly patients. *Mayo Clinic Pro.* 66:254-258.

9. Swanson, T. H., P. J. B. Garrett, L. J. Burdette, G. D. Cascino and F. W. Sharbrough. 1991. Outcome of patients with early seizures following anterior temporal lobectomy. *J. Epilepsy*. 4:199-203.
10. Swanson, T. H. 1995. The pathophysiology of human mesial temporal lobe epilepsy. *J. Clin. Neurophys.* 12(1):2-22.
11. Swanson, T. H., J. Drazba and S. A. Rivkees. 1995. Adenosine A1 receptors are located predominately on axons in the rat hippocampal formation. *J. Comp. Neurol.* 363:517-531.
12. Draughn, L. R. and T. H. Swanson. 1997. Axillary Somatosensory Evoked Potential Response: An Alternate Peripheral Recording Site. *J. Clin. Neurophys.* 15(1):64-68.
13. Swanson, T. H., S. E. Krahl, Y. Z. Liu and S. A. Rivkees. 1998. Evidence for physiologically active axonal adenosine receptors in the rat corpus callosum. *Brain Res.* 784:188-198.
14. Swanson, T. H., M. J. O'Connor and M. R. Sperling. 1998. Strong paired pulse depression of dentate granule cells in slices from patients with temporal lobe epilepsy, *J. Neural. Transm.* 105:613-625.
15. Rivkees, S.A., A. P. Ijzerman, and T. H. Swanson. 1998. New insights into the molecular mechanisms of A1 adenosine receptor action. *Drug Development Research.* 45:93-102.

Book Chapters

1. Swanson, T. H. and M. R. Sperling. 1994. "Seizures That Do Not Look Like Seizures." In *Imitators of Epilepsy*, edited by Fisher. New York: Demos. 11-26.
2. Swanson, T. H. 1997. "The Electrophysiology of Human Epileptic Hippocampus and Temporal Cortex." In *The Treatment of Epilepsy: Principles and Practice*, edited by E. Wyllie. Philadelphia: Lea and Febiger. 2nd Edition.
3. Jones, S. W. and T. H. Swanson. 1997. "Basic Cellular Neurophysiology." In *The Treatment of Epilepsy: Principles and Practice*, edited by E. Wyllie. Philadelphia: Lea and Febiger. 2nd Edition.
4. Timofeeva, O. A. and T. H. Swanson. 1998. "Neurophysiology of Epileptic Seizures: Animal Experience." In *Epileptic Seizures*, edited by Hans Lüders. New York :John Wiley and Sons.
5. Swanson, T. H. and S. A. Rivkees. 1998. "Immunochemical Analysis of Neurotransmitter Receptors." In *Receptor Localization: Laboratory Methods and Procedures*, edited by M. Ariano. N.p.:John Wiley. in press.
6. Swanson, T. H. 1998. "Synaptic Transmission." In *Comprehensive Clinical Neurophysiology*,. edited by Levin and Lüders. N.p.:Wiley-Liss, Inc.

7. Swanson, T. H. 1998. "The Physiologic Basis of the EEG." In *Comprehensive Clinical Neurophysiology*, edited by Levin and Lüders. N.p.:W. B. Saunders.
8. Swanson, T.H. 2002. "The Origins of the Signals". In *Fundamental of EEG Technology*, 2/e. edited by Burgess, Klem, and Luders.N.p: Lippincott Williams & Wilkins,

Abstracts

- 1 Swanson, T. H., C. L. Green and M. A. Morón. "Regional distribution of adenosine deaminase activity in rat brain" abstract in *The Physiologist*, (1985):28(4):329.
2. Fredholm, B. B., P. S. Hu, E. Lindgren, M. Duner-Engstrom and T. H. Swanson. "Interactions between calcium-channel agonists and antagonists at the pre-junctional adenosine receptor." abstract in *Ann. New York Acad. Sci.* (1988):522.
3. Swanson, T. H., K. A. Hirschorn, G. D. Cascino and F. W. Sharbrough. "Outcome of patients with early seizures following epilepsy surgery." abstract in *Epilepsia*, (1989):30:728.
4. Cascino, G. D., B. Westmoreland, T. H. Swanson and F. W. Sharbrough. "Speech arrest with EEG correlates "transient ictal attacks." (presented at the American Academy of Neurology annual meeting, Miami, 1990.)
5. Swanson, T. H. and L. M. Masukawa. "N6-Cyclopentyladenosine, a stable adenosine analog, exerts concentration-dependent effects on evoked granule cell activity." abstract in *Soc. Neurosci. Abstr.* (1991):17(2):1548.
6. Swanson, T. H. Adenosine increases the signal to noise ratio in fascia dentata by a pre-synaptic mechanism, abstract in *Soc. Neurosci. Abstr.*
7. Swanson, T. H. and L. M. Masukawa. "Carbamazepine blocks adenosinergic excitation in the hippocampus" abstract in *Epilepsia* (1991):32(3):35
8. Swanson, T. H. "The effects of A-1 specific adenosine analogs on synaptic transmission in the human hippocampal slice." abstract in *Int. J. Purine and Pyrimid. Res.* (1992):32(1):43.
9. Swanson, T. H., M. R. Sperling, M. J. O'Connor and H. O. Lüders. "Electrophysiologic evidence for increased feedback and decreased feedforward inhibition in human epileptic dentate gyrus." abstract in *Epilepsia* (1995).
10. Swanson, T. H., W. C. Zhen, S. A. Rivkees and J. Drazba. "Immunocytochemical localization of hippocampal adenosine A1 receptors to axons but not dendrites or cell bodies." abstract in *Society for Neuroscience Abstracts*. (1995).
11. Krahl, S. E., Y. Z. Liu and T. H. Swanson. "Evidence for Physiologically active Axonal A1 Adenosine Receptors." (presented at the Society for Neuroscience annual meeting, 1996.)

12. Draughn, L. R., and T. H. Swanson. "Axillary SSEP Response: An Alternate Peripheral Recording Site." abstract in *American Society for Neurophysiological Monitoring*, (Spring, 1997).
13. Swanson, T. H., S. E. Krahl, S. A. Rivkees and O. A. Timofeeva. "Rat brain adenosine A1 receptor antisense decreases specific adenosine ligand binding." (presented at the Society for Neuroscience annual meeting, 1997.)
14. Daube, J. R., M. A. Aminoff, P. Antuono, R. Brey, R. K. Deuel, J. Emmett, W. J. Koroshetz, T. H. Swanson, J. W. Phillis and S. D. Yankton. "The Importance of Animal Research in Neuroscience Advances: A Historical Perspective." (presented at the American Academy of Neurology annual meeting, 1998.)