

Curriculum Vitae

August, 2021

Name: Thomas H. Swanson, MD, FAES

Work: Montana Neurology
2825 Fort Missoula Road,
Suite 121
Missoula, MT 59804

Home: 3230 Beach Lake Drive West
Milford, MI 48380

Education:

M.D., 1986 Wayne State University School of Medicine, Detroit, MI

B.S., 1979 Biology, Eastern Michigan University, Ypsilanti, MI

Cleveland Marshall College of Law; 2006-08

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

Inactive

2013 Idaho
2010 Wyoming
1993 Ohio
1991 New Jersey
1990 Pennsylvania
1987 Minnesota
1986 Michigan

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)

Academic Appointments / Corporate Positions:

2018-2019 Owner, Lucid Neurology Southfield, MI (sold 2019)
2017- Chief Executive Officer, Sativa Science
2016 Fellow, American Epilepsy Society
2013-2018 Chief Executive Officer, 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- Chief Executive Officer, Montana Neurology

2008-2009 Montana Neurobehavioral Associates

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

1998-2010 Chief Executive Officer, 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 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, 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

Grants and Research Support:

- 2013** **UCB SP BRITE study**
- 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
- 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*, (year 1 of 4)
- 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, (Dr. Marc Dichter, sponsor), David Mahoney Institute of Neuroscience, University of Pennsylvania, Philadelphia, PA

Awards and Honors:

- 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.
- 2006 Named one of America's Top Doctors, Consumer Reports.
- 2000 Six-time Smitty Stevens Annual Memorial Nastar, Race Winner, Winter Conference on Brain Research.
- 1987 Neurology Residents' Epilepsy Research Competition Award, Abbott Pharmaceuticals, *The Role of Adenosine in Epilepsy*.
- 1988
- 1989 G. Milton Shy Award from the American Academy of Neurology, *Creutzfeldt-Jakob Disease*.
- 1985, 1986 National Dean's List, Wayne State University Medical School.
- 1969-1974 Midwest American Professional Champion sled dog racer, 5-dog class 1970, 1971; Midwest American Professional Champion, 7-dog class 1974. Raced professionally from age 12-16 for Pine Ridge Kennels.

Memberships and Services:

- 2019- Founding Board Member, Sativa Science Foundation
- 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 Senator Capo, lobbied for neuroscience research.
- 2011-14 Regional Work Group Member Institute of Translational Health Sciences, University of Washington Medical School
- 2010 Palatucci Fellow, American Academy of Neurology, Advocacy Research Fellowship

- 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 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, 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

American Association for the Advancement of Science
 American Medical Association
 American Academy of Neurology
 American Epilepsy Society
 Society for Neuroscience
 Doris A. Flynn Foundation Epilepsy Fellowship Selection Committee
 Cleveland Clinic Research Program Committee, Reviewer
 Ad Hoc Reviewer, VA Merit Review Board
 Field Reviewer, *Brain Research*, *J. Clinical Neurophysiology*, *Epilepsia*, *J. Neuroscience Methods*, *J. Neurosurgery*

Invited Lectures (Partial List)

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.)