

Curriculum Vitae

HAL BLUMENFELD, MD, PhD

Departments of Neurology, Neurobiology, and Neurosurgery
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TITLE AND ACADEMIC APPOINTMENT:

Professor, Departments of Neurology, Neurobiology, and Neurosurgery
Director, Yale Clinical Neurosciences Imaging Center (CNIC)
Yale University School of Medicine

EDUCATION:

Harvard University - B.A. *cum laude*, Bioelectrical engineering, 1984.
Columbia University - M.A., Physiology and Cellular Biophysics, 1988.
Ph.D., Physiology and Cellular Biophysics, 1990.
M.D. 1992.

CLINICAL EXPERIENCE AND BOARD CERTIFICATIONS:

1992-93 Internal Medicine Intern, Columbia Presbyterian Medical Center, NY
1993-96 Neurology Resident, Massachusetts General Hospital, Boston, MA
1996-98 Epilepsy Fellow, Yale University School of Medicine, CT
1998 Board Certification by American Board of Psychiatry and Neurology
2001 Board Certification by American Board of Clinical Neurophysiology
1998- Attending on Yale Epilepsy Service

RESEARCH EXPERIENCE:

1982-83 Neurophysiology Research Assistant, Mount Sinai Medical Center, NY
Laboratory of Bernard Cohen, MD
1984-90 Doctoral Thesis - "Modulation of Intracellular Calcium in *Aplysia* Sensory
Neurons." Columbia University College of Physicians and Surgeons, NY,
Laboratory of Steven Siegelbaum, PhD and Eric Kandel, MD.
1998-00 Associate Research Scientist, Yale Departments of Neurobiology and Neurology
Laboratory of David McCormick, PhD
2000-06 Assistant Professor, Yale Departments of Neurology and Neurobiology
2003-06 Assistant Professor, Yale Department of Neurosurgery (joint appointment)
2006-10 Associate Professor, Yale Departments of Neurology, Neurobiology, Neurosurgery
7/1/2010- Professor, Yale Departments of Neurology, Neurobiology, Neurosurgery
9/1/2011- Director, Yale Clinical Neuroscience Imaging Center (CNIC)

ACADEMIC HONORS AND AWARDS:

1983-84 John Harvard Scholarship - Highest Academic Honors
1984-92 Medical Scientist Training Program Fellowship
1990 Dean's Day Award for Medical Student Research
1992 Lamport Award for Biomedical Research
1992 Alpha Omega Alpha - Medical School Honors Society
1996 Top Scholar Fellow, Ortho-McNeil
1998-01 Howard Hughes Medical Institute Fellowship. Awarded; replaced by other grants.
1998-01 Pfizer Fellowship
1998-03 NIH, Research Career Award (K08)
1999 American Epilepsy Society, Young Investigator Award

- 2000-02 Charles A. Dana Foundation, Clinical Hypotheses in Neuroscience Award
 2000 NIH Curing Epilepsy-Focus on the Future, Junior Investigator Travel Fellowship
 2000 American Epilepsy Society, Presidential Symposium Speaker
 2000-01 Epilepsy Foundation of America, Junior Investigator Award
 2002-04 Patterson Trust, Research Grant
 2004-08 NIH R01 "Neuronal firing and neuroimaging in spike-wave seizures"
 2005- Blattmachr Fund, Research Grant
 2005 American Neurological Association, John N. Whitaker Visiting Professorship
 2005 American Academy of Neurology, Dreifuss-Perry Epilepsy Research Award
 2006-10 NIH R01 "Functional neuroimaging in childhood absence epilepsy"
 2007-12 Donaghue Foundation Investigator Award
 2007 The Francis Gilman Blake Award. Awarded annually to that member of the faculty of the Yale School of Medicine designated by the senior class as the most outstanding teacher of the medical sciences.
 2009-11 NIH R01 "Preventing spike-wave epileptogenesis: critical period & neuroimaging Biomarkers"
 2011 Master of Arts, *privatim*, Yale University
 2011 NIH R01 "Remote effects of focal hippocampal seizures on the rat neocortex"
 2012 Member, Kavli Institute for Neuroscience at Yale

TEACHING AND ADMINISTRATION :

- 1984 Teaching Fellow, "Electronic Devices and Circuits," Harvard University, MA
 1987-92 Neuroanatomy Instructor, Columbia University, NY
 1991-92 Founder and Organizer, Student-run Columbia Neurosciences Society (C.N.S.), NY
 1993-94 Neuroanatomy Instructor, Harvard University, MA
 1994-96 Neurobiology Course Director, Harvard University, MA
 "Exploring the Mind through Biological Models and Human Disease"
 1996-00 Neuroanatomy Instructor, Yale University School of Medicine, CT
 1999- Clinical Neuroanatomy Course Director, "Neuroanatomy Case Conferences," Yale University School of Medicine, CT
 2002-10 Faculty Director, Yale Student Interest Group in Neurology, AAN
 2002-11 Director of Medical Studies in Clinical Neurosciences, Yale University School of Medicine, CT
 2002-04 Member of Yale Pre-Clinical Student Assessment Working Group
 2003-10 Neurology Residency Application Advisor, Yale University School of Medicine, CT
 2006-07 Yale LCME Education Committee
 2010- Yale Neurology Department, Appointments and Promotions Committee
 2011- Yale School of Medicine, Senior Appointments and Promotions Committee
 2011- Yale Neurology Department, Neurology Residency Selection Committee
 2011- Director, Yale Clinical Neuroscience Imaging Center (CNIC)

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

- Society for Neuroscience
 American Academy of Neurology
 American Epilepsy Society
 American Clinical Neurophysiology Society
 American Neurological Association, elected 2009

EDITORIAL BOARDS AND REVIEW COMMITTEES

Associate editor: *Neuroscience Letters*

1/1/2004 – 1/16/2009

Standing review committees:

Yale Bioimaging Scholar Awards Committee	10/2005 – 10/2011
American Epilepsy Society Scientific Programming Committee	12/2007 – 12/2009
American Epilepsy Society Investigator Workshop Committee	12/2009 – 12/2010
Yale Neurology Department Appointment & Promotion Committee	7/2010 –
Co-Chair, AES Clinical Investigator Workshop Committee	12/2010 – 12/2011
Chair, AES Clinical Investigator Workshop Committee	12/2011 –
ASSC 17, Scientific Committee	1/2012 –
Yale Pediatric Neurology Chief Search Committee	1/2012 –

NINDS epilepsy benchmark steward:

Prepare biannual reports on research progress in the study of affective, attentional and cognitive comorbidities in epilepsy	10/2008 – 10/2009
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Ad hoc grant reviews:

NIH General Medical Sciences Special Emphasis Panel, NIH Biomedical Imaging Technology Study Section, NIH/NINDS Board of Scientific Counselors, Canadian Institutes of Health Research (CIHR), United States-Israel Binational Science Foundation, Thrasher Research Fund

Ad hoc journal reviews:

Neuron, PNAS, Journal of Neuroscience, Cerebral Cortex, Brain, Neuroimage, Annals of Neurology, Neurology, Nature Clinical Practice Neurology, Journal of Physiology, Epilepsia, PLOS One, American Journal of Neuroradiology, British Journal of Pharmacology, Human Brain Mapping, Neuroscience Letters, Journal of Neuroscience Methods, Epilepsy Research, Experimental Neurology, Brain Research, Physiology and Behavior, American Journal of Psychiatry, American Journal of Neuroradiology, Archives of General Psychiatry, NeuroReport

INVITED SYMPOSIA OR GRAND ROUNDS:

2000	Yale University, Neurology Grand Rounds. New Haven, CT. "Consciousness and Seizures: Why are Patients With Absence Absent?"
2000	American Epilepsy Society Presidential Symposium. Los Angeles, CA. "The Neuronal Network of Generalized Epilepsies."
2001	Yale University, Seminar Series in Bioimaging Sciences. New Haven, CT. "Network Inhibition Hypothesis for Loss of Consciousness During Seizures."
2001	Harvard University, Brigham and Women's Neurosurgery Grand Rounds. Boston, MA. "Are Generalized Seizures Truly Generalized?"
2001	Columbia University, Biology and Neurobiology Dept. Seminar. New York, NY. "Why Do Seizures Cause Loss of Consciousness?"
2002	Yale University, Club Neurobiology. New Haven, CT. "Why Do Seizures Cause Loss of Consciousness?"
2002	Yale University, Psychiatry Department Seminar. New Haven, CT. "Seizures, Memory, Mood and Consciousness."
2002	Yale University, Neurology Grand Rounds. New Haven, CT. "Idiopathic Generalized Epilepsies Revisited: Pathophysiology, Genetics, and Treatment."
2002	Society for Neurosciences Symposium. Miami, FL. "Heterogeneous Expression of Molecules and Thalamocortical Network Activity in Generalized Seizures."
2002	American Epilepsy Society Symposium. Seattle, WA. "Network Mechanism in Primary Generalized Epilepsy."
2002	Yale/VA Statistical Parametric Mapping Seminar. West Haven, CT. "Applications of SPM in Ictal-Interictal SPECT Analysis"

- 2002 Queens College, Neuropsychology Dept. Seminar. Queens, NY. "Are 'Generalized' Seizures Truly Generalized?"
- 2003 Association of Convulsive Therapy Symposium. San Francisco, CA. "Ictal imaging in ECT: Lead placement determines focal regions of activation."
- 2003 Spectrum Psychiatric Group, Hamden, CT "Use of Antiepileptic Drugs: A Practical Review"
- 8/13/03 Magnetic Resonance Research Center Seminar. Yale University, New Haven, CT "CBF and Metabolism during Rodent Seizures"
- 3/3/04 Hebrew University School of Medicine, Physiology Dept. Seminar, Jerusalem, Israel. "Thalamocortical interactions during spike-wave seizures investigated through rodent fMRI"
- 3/3/04 Hebrew University School of Medicine, Neurology Dept. Seminar, Jerusalem, Israel. "Sleeping on the job: How bad habits in the temporal lobe rub off on neighboring neocortex."
- 3/10/04 University of Syracuse School of Medicine, Neurology Dept. Grand Rounds, Syracuse, NY. "Sleeping on the job: How bad habits in the temporal lobe rub off on neighboring neocortex."
- 10/14/04 Child Neurology Society Symposium. Ottawa, Ontario. "The Physiology of Generalized Seizures."
- 3/18/05 International Symposium: Epilepsy and Sleep Update at Kempenhaeghe, Heeze, Netherlands "From molecules to networks: cortical/subcortical interactions in the pathophysiology of idiopathic generalized epilepsy."
- 4/6/05 West Virginia School of Medicine, Neuroscience Seminar, Morgantown, WV. "Ups and downs of neuronal activity and neuroimaging during seizures."
- 4/20/05 UMDNJ, Robert Wood Johnson Medical School, New Brunswick, NJ. "Epilepsy and consciousness: What makes complex partial seizures complex?"
- 5/25/05 NYU Medical Center, New York, Neurology Dept. Grand Rounds "Networks, Neurons, and Molecules in Seizure Generation."
- 6/10/05 Dartmouth-Hitchcock Medical Center, Neurology Dept. Grand Rounds "Great ExSPECTations: Consciousness, Epilepsy, and Functional Neuroimaging"
- 6/21/05 Society for Nuclear Medicine Symposium, Toronto, Canada "A Window to the Soul: SPECT Imaging of Ictal and Postical Unconsciousness"
- 9/1/05 Yale fMRI Seminar, New Haven, CT "Functional Neuroimaging in Childhood Absence Epilepsy"
- 9/13/05 University of Alabama Dept of Neurology Grand Rounds, Birmingham, AL "Epilepsy and Consciousness: Why Are Patients with Absence Seizures Absent?"
- 9/14/05 University of Alabama, Neurology/Neurosurgery Epilepsy Conference, Birmingham, AL "Why Do Focal Temporal Lobe Seizures Cause Loss of Consciousness?"
- 10/20/05 National Academy of Neuropsychology, 3 hour invited workshop, Tampa, FL "Neuroanatomy through Clinical Cases"
- 11/14/05 Society for Neuroscience Session Chair, Washington, DC "Epilepsy: Animal Models and Human Studies II"
- 11/28/05 Connecticut Neuropsychological Society, Dr. James Tweedy Memorial Lecture, New Haven, CT "Epilepsy and Consciousness"
- 12/3/05 American Epilepsy Society Symposium Chair, Washington, DC "Impaired Consciousness in Epilepsy: Mechanisms and Consequences"
- 12/3/05 American Epilepsy Society Symposium, Washington, DC "Neuroimaging and Loss of Consciousness in Epilepsy"
- 2/17/05 Epileptic Disorders Workshop, Rome, Italy. Discussant on "Generalized seizures : From clinical phenomenology to underlying systems and networks"
- 2/17/05 Epileptic Disorders Workshop, Rome, Italy. Session Chair, "Absence seizures and cortico-thalamic systems"

- 3/7/06 Tel Aviv University and Weill/Cornell Neurology Symposium, Tel Aviv, Israel "Why do seizures cause loss of consciousness?"
- 3/9/06 Massachusetts General Hospital, Neurology Dept. Grand Rounds, Boston, MA "Epilepsy and Consciousness"
- 4/5/06 Albert Einstein School of Medicine, Neuroscience Seminar, New York, NY "Why are Patients with Absence Seizures Absent?"
- 5/3/06 Brown University, Neurology Dept. Grand Rounds, Providence, RI "Epilepsy as a Window to Understanding Consciousness"
- 9/15/06 Yale University, Department of Psychiatry Grand Rounds, New Haven, CT "Epilepsy and Consciousness"
- 10/30/06 Columbia University, Epilepsy Research Seminar, New York "Why do seizures cause loss of consciousness?"
- 2/23/07 SUNY Downstate, Neurology Dept. Grand Rounds, Brooklyn, NY "Epilepsy and Consciousness"
- 3/9/07 Thomas Jefferson University, Neurology Grand Rounds, Philadelphia, PA "Epilepsy as a Window to Understanding Consciousness"
- 3/21/07 Yale University, Department of Neurology Grand Rounds, New Haven, CT "Does Early Treatment Prevent Epilepsy?"
- 4/5/07 First International Epilepsy Symposium, Herzlia, Israel "Molecules to Networks: Basic Mechanisms and New Therapeutic Targets"
- 4/23/07 UC Irvine, Distinguished Speaker, UCI MD/PhD Lecture Series, Irvine, CA "Neurobiology of Consciousness: Networks, Epilepsy, and Brain Function"
- 5/9/07 International Epilepsy Symposium, Invited speaker, Ann Arbor, MI "Role of Sodium Channel Upregulation in Partial and Generalized Epilepsy"
- 6/5/07 F.C. Donders Center for Cognitive Neuroimaging Seminar Speaker, Netherlands "Neural basis of fMRI signal increases and decreases in epilepsy"
- 6/6/07 Keynote speaker, Dutch ENP Neuroscience Meeting, Netherlands "Brain imaging of epilepsy and impaired consciousness"
- 12/2/07 Investigator's Workshop Speaker, American Epilepsy Society, Philadelphia, PA "fMRI of ictal activity in animal models"
- 12/7/07 Association for Research in Nervous and Mental Disease *with* The New York Academy of Medicine, Conference Speaker, New York, NY "Epileptic Unconsciousness"
- 12/12/07 Yale School of Medicine, Grand Rounds, Dept. of Pediatrics, New Haven, CT "An ounce of prevention: Can early treatment block development of genetic epilepsy?"
- 2/27/08 University of Cincinnati, Grand Rounds, Dept. Neurology and Center for Imaging Research, Cincinnati, OH "Neuroimaging and Consciousness in Childhood Absence Epilepsy"
- 3/11/08 Quantitative Neuroscience with Magnetic Resonance (QNMR) Symposium, Yale University School of Medicine, New Haven, CT "fMRI and Epilepsy"
- 3/19/08 UCSF Medical School, Grand Rounds, Dept. Neurology, San Francisco, CA "Consciousness and Epilepsy"
- 4/9/08 Yale School of Medicine, Magnetic Resonance Research Center Seminar, New Haven, CT "Imaging biomarkers of spike-wave epilepsy prevention"
- 4/16/08 JFK Johnson Rehabilitation Institute, Neuropsychology Grand Rounds, Edison NJ "Epilepsy and Consciousness"
- 4/29/08 University of Minnesota, Neuroengineering Seminar, Minneapolis, MN "Seeing is not always believing: Paradoxical neuroimaging in epilepsy"
- 5/16/08 Yale School of Medicine, Autism Program, Child Study Center, Science Meeting "Early treatment: Potential for preventing epilepsy and associated disability"
- 11/5/08 Columbia University, Radiology Didactic Lecture, New York, NY

- 11/5/08 “Great ExSPECTations: Epilepsy surgery localization and ictal SPECT”
Columbia University, Radiology Grand Rounds, New York, NY
- 12/2/08 “Ups and downs of fMRI changes in epilepsy: Neural basis of BOLD fMRI”
Club Neurobiology seminar speaker, Yale University School of Medicine
- 12/6/08 “Can we understand consciousness? New insights from epilepsy imaging, physiology, and behavior”
Investigator’s Workshop Speaker, American Epilepsy Society, Seattle, WA
- 12/7/08 “Neuroimaging and IGE: Monitoring anti-epileptogenesis”
Investigator’s Workshop Speaker, American Epilepsy Society, Seattle, WA
- 12/08/08 “Ups and downs of fMRI changes in epilepsy: fundamental animal studies”
Platform Session “Surgery/Imaging,” Session Moderator, American Epilepsy Society, Seattle, WA
- 12/11/08 Georgetown University School of Medicine, Clinical/Basic Epilepsy Research Seminar
Washington, DC “Network effects of rat limbic seizures on neocortical function”
- 1/20/09 Montreal Neurological Institute, Killam Lecture, Montreal, Canada
“Epilepsy and consciousness: Why are patients with absence seizures absent?”
- 2/16/09 Tel Aviv University and Weill/Cornell Neurology Symposium, Tel Aviv, Israel
“Neuroimaging tools for monitoring epileptogenesis and epilepsy prevention”
“Neuroimaging and impaired consciousness in epilepsy”
- 4/6/09 Grass Lecture, Wake Forest School of Medicine, Winston-Salem, NC
“The consciousness system: New insights from epilepsy”
- 6/4/09 Mind Science Foundation Symposium Speaker (ASSC), Berlin, Germany
“Why do seizures cause loss of consciousness?”
- 6/30/09 28th International Epilepsy Congress Symposium Speaker, Budapest, Hungary
“Effects of treatment: Can epilepsy be prevented?”
- 11/3/09 Cognitive Science Symposium, Yale University, New Haven, CT
“Epilepsy as a Window to Understanding the Consciousness System”
- 11/12/09 National Academy of Neuropsychology, 3 hour invited workshop, New Orleans, LA
“Neuroanatomy through Clinical Cases”
- 11/20/09 Cold Spring Harbor Laboratory, Neuroscience Seminar, Cold Spring Harbor, NY
“Consciousness and Epilepsy: Do Limbic Seizures put the Neocortex to Sleep?”
- 2/16/10 Yale University MBCC (Mind, Brain, Culture, and Consciousness) Working Group
Seminar “Epilepsy and the Consciousness System”
- 3/5/10 University of Rochester Department of Neurology, Grand Rounds, Rochester, NY
“Fundamental Mechanisms of Impaired Consciousness in Epilepsy”
- 3/15/10 Quantitative Neuroscience with Magnetic Resonance (QNMR) Symposium, Yale
University School of Medicine, New Haven, CT “Epilepsy Imaging and Physiology”
- 5/7/10 Schneider Children’s Hospital, Pediatric Neurology Conference, New Hyde Park, NY
“Research Advances in Childhood Absence Epilepsy”
- 5/10/10 Mayo Clinic Department of Neurology, Visiting Professor (“Resident’s Choice”) and
Neurology Grand Rounds, Rochester, MN
“The Consciousness System: Cortical-subcortical Networks and Epilepsy”
- 5/11/10 Mayo Clinic Department of Neurology, Neurology Resident Lecture, Rochester, MN
“Clinical Neuroanatomy Case Conference”
- 6/4/10 Emory School of Medicine, Neurology Grand Rounds, Atlanta, GA
“Brain Networks: Imaging, Consciousness, and Epilepsy”
- 6/4/10 Emory School of Medicine, Neurology Teaching Lecture, Atlanta, GA
“Clinical Neuroanatomy Case Conference: Higher Order Cortical Functions”
- 12/5/10 Investigator’s Workshop Speaker, American Epilepsy Society, San Antonio, Tx
“Childhood absence epilepsy: fMRI cautionary notes and treatment biomarkers”
- 12/16/10 Blythedale Children’s Hospital, Neurology Grand Rounds, Valhalla, NY
“Research Advances in Childhood Absence Epilepsy”

- 3/11/11 North Shore LIJ, Department of Neurology Grand Rounds, Manhasset, NY
"Research Advances in Epilepsy Imaging and Physiology"
- 3/31/11 University of Iowa Medical School Neurology Grand Rounds, Iowa City, IA
"Impaired consciousness in epilepsy: Mechanisms and consequences"
- 4/7/11 Yale Magnetic Resonance Research Center fMRI Seminar, New Haven, CT
"Neuroimaging and Behavior in Childhood Absence Seizures"
- 5/13/11 Yale Epilepsy CME Symposium, New Haven, CT
"Ictal SPECT in Epilepsy Localization"
- 5/18/11 Albany Medical College Neuropharmacology and Neuroscience Seminar
"Sleeping on the job: Decreased cortical arousal in limbic seizures"
- 5/19/11 Albany Medical College Neurology Grand Rounds, Albany NY
"Why do seizures cause impaired consciousness? Imaging, physiology and behavior"
- 7/20/11 University of Melbourne Epilepsy Retreat Moderator and Speaker, Australia
"Epilepsy and Consciousness"
- 8/30/11 International League Against Epilepsy, Plenary Session Organizer and Chair, Rome
"Impaired consciousness in epilepsy: mechanisms and clinical significance"
- 8/30/11 International League Against Epilepsy, Plenary Session Speaker, Rome, Italy
"Overview: From Basic Mechanisms to Impaired Driving in Epileptic Unconsciousness"
- 9/13/11 NYU School of Medicine, Child Neurology Grand rounds, New York, NY
"Childhood Absence Epilepsy: A Wolf in Sheep's Clothing?"
- 9/23/11 Yale Dean's Workshop, New Haven, CT
"Neuroimaging of Impaired Consciousness in Epilepsy"
- 11/4/11 Cardiff University, School of Biosciences Research Symposium, Cardiff, UK
"Cortical-subcortical mechanisms of impaired consciousness in limbic seizures"
- 12/5/11 Investigator's Workshop Speaker, American Epilepsy Society, Baltimore, MD
"Role of subcortical structures in epileptic unconsciousness"
- 1/12/12 Massachusetts General Hospital Neurology Grand Rounds, Boston, MA
"Consciousness and Epilepsy"
- 2/2/12 Albert Einstein College of Medicine, Neurology Grand Rounds, NY, NY
"Brain Imaging, Consciousness and Epilepsy"
- 3/7/12 Yale School of Medicine, Neurology Grand Rounds, New Haven, CT
"Epilepsy and Consciousness"
- 3/22/12 Saint Francis Hospital Medicine Grand Rounds, Hartford, CT
"Epilepsy as a Disorder of Consciousness"
- 5/1/12 Yale School of Medicine, Club Neurobiology Seminar Speaker, New Haven, CT
"Sleeping on the job: Inhibition of subcortical arousal in limbic seizures"
- 5/10/12 Yale Epilepsy CME Symposium, New Haven, CT
"Driving and epilepsy"
- 5/14/12 Lehrhaus Presentation, Hebrew Institute of White Plains, White Plains, NY
"To Limp, Fall, Stammer and Inspire: Neurology in the Bible"
- 9/6/2012 University of Connecticut, Hartford Hospital Neurology Grand Rounds, Hartford, CT
"Update on Childhood Absence Epilepsy: EEG, fMRI and Behavior"
- 11/1/12 Korea Neurological Association, Plenary Speaker, Seoul, Korea
"Epilepsy and Consciousness"
- 11/1/12 Korea Neurological Association, Parallel Session Speaker, Seoul, Korea
"Combined electrophysiology-neuroimaging studies in epilepsy"
- 11/30/12 American Epilepsy Society Special Interest Group speaker
"Slow down, you're going too fast: Groovy frontal rhythms in TLE"
- 12/5/12 UCLA Neuroscience Grand Rounds, Los Angeles, CA
"Consciousness and Epilepsy"
- 12/6/12 University Washington Center for Human Development and Disability Seminar,

- Seattle, WA "Childhood Absence Epilepsy: A Wolf in Sheep's Clothing?"
 1/15/13 UC Irvine, Depts of Anatomy and Neurobiology EpiCenter Seminar, Irvine, CA
 "Many seizure types, one final common path: Impaired consciousness in epilepsy"
 5/10/13 Yale Epilepsy CME Symposium, New Haven, CT
 "Controversies in seizure classification"
 5/30/13 Toronto Sick Kids Centre for Brain & Behavior Annual Symposium speaker
 "Abnormal Connectivity and Early Life Seizures"
 7/9/13 Cognitive Neuroscience Summer Institute, Lake Tahoe, CA
 "Consciousness and Seizures"
 10/9/13 University of Pennsylvania Neurology Grand Rounds, Philadelphia, PA
 "Epilepsy and Consciousness"
 10/31/13 Yale Neurology Dept. Research Happy Hour Speaker, New Haven, CT
 "Impaired arousal can be fatal: Brainstem mechanism of SUDEP"
 11/6/13 Invited speaker, 6th International Workshop on Seizure Prediction, San Diego, CA
 "Neurostimulation to increase consciousness in complex partial seizures"
 1/22/14 Cornell Neurology Grand Rounds, New York, NY
 1/29/14 Neurology Grand Rounds, Rutgers University- NJ Medical School, Newark, NJ
 2/26/14 Neurology Grand Rounds, New York Medical College, Valhalla, NY
 "Impaired consciousness in epilepsy: Mechanisms and consequences"
 3/3/14 Yale University Epilepsy Research Presentation, New Haven, CT
 "Impaired consciousness and sudden death in epilepsy"
 3/18/14 NYU Department of Neurology Grand Rounds, New York, NY
 5/23/14 Yale Epilepsy CME Symposium, New Haven, CT
 "Recent advances in epilepsy research"
 12/14 American Epilepsy Society Investigator Workshop speaker

PUBLICATIONS:

1. NEUROSCIENCE BOOKS:

Blumenfeld, H., *Neuroanatomy through Clinical Cases*. (2002). Sinauer Associates, Inc., Publishers. Sunderland, MA. 1-951.

Blumenfeld, H., *Neuroanatomy through Clinical Cases, 2nd Edition*. (2010). Sinauer Associates, Inc., Publishers. Sunderland, MA.

Cavanna AE, Nani A, Blumenfeld H, Laureys S (Eds). *Neuroimaging of Consciousness*. (2013). Springer Publ, NY.

2. MULTI-MEDIA EDUCATIONAL RESOURCES:

Blumenfeld, H., 2000. *neuroexam.com*. An interactive online guide to the neurologic examination, with streaming video demonstrations <http://www.neuroexam.com>

Blumenfeld, H. 2001. *The NeuroExam Video*. Sinauer Associates, Inc., Publishers.
 A videotaped demonstration of the neurologic exam.

Blumenfeld, H. 2005. *Ictal-interictal SPECT Analyzed by SPM (ISAS)*. Online guide to SPECT image analysis for epilepsy, with software and normal database. <http://spect.yale.edu/>

Blumenfeld H. 2006. Neurology SPECT & PET – Epilepsy Section. Society of Nuclear Medicine Continuing Medical Education. <http://www.snm.org/llsap/>

3. PEER-REVIEWED ORIGINAL RESEARCH:

Guffanti, A.A., Blumenfeld, H. and Krulwich, T.A. (1981). ATP synthesis in an uncoupler-resistant mutant of *Bacillus megaterium*. *J. Biol. Chem.* 256, 8416-8421.

Castellucci, V.F., Frost, W., Goelet, P., Montarolo, P.D., Schacher, S., Morgan, J., Blumenfeld, H. and Kandel, E.R. (1987). Cell and molecular analysis of long-term sensitization in *Aplysia*.. In *Regulation et Plasticite Synaptiques*. *J. Physiol. (Paris)* 81, 349-357.

Castellucci, V.F., Blumenfeld, H., Goelet, P. and Kandel, E.R. (1989). Inhibitor of protein synthesis blocks long-term behavioral sensitization in the isolated gill-withdrawal reflex of *Aplysia*. *J. Neurobiol.* 20, 1-9.

Blumenfeld, H., Spira, M.E., Kandel, E.R. and Siegelbaum, S.A. (1990). Facilitatory and inhibitory transmitters modulate calcium influx during action potentials in *Aplysia* sensory neurons. *Neuron* 5, 487-499.

Blumenfeld, H., Zablow, L., Sabatini, B. (1992). Evaluation of cellular mechanisms for modulation of calcium transients using a mathematical model of fura-2 Ca²⁺ imaging in *Aplysia* sensory neurons. *Biophysical J.* 63, 1146-1164.

Eliot, L.S., Kandel, E.R., Siegelbaum, S.A. and Blumenfeld, H. (1993). Imaging terminals of *Aplysia* sensory neurons demonstrates role of enhanced Ca²⁺ influx in presynaptic facilitation. *Nature* 361, 634-637.

Blumenfeld, H., Cha, J.H. and Cudkovicz, M.E. (1996). Trimethoprim and sulfonamide-associated meningoencephalitis with MRI correlates. *Neurology*, 46: 556-558.

Scott P, Barsan W, Frederiksen S, ... Blumenfeld H. ... Brennan KM. (1996). A randomized trial of tirilazad mesylate in patients with acute stroke (RANTTAS). *Stroke*, 27(9): 1453-1458.

Kalkanis, S.N., Blumenfeld, H., Sherman, J.C., Krebs, D.E., Irizarry, M.C., Parker, S.W. and Cosgrove, G.R. (1996). Delayed complications 36 years after hemispherectomy: a case report. *Epilepsia*, 37(8): 758-762.

Shapiro, B.E., Soto, O., Shafqat, S. and Blumenfeld, H. (1997). Adult botulism. *Muscle and Nerve*, 20: 100-102.

Blumenfeld, H., and McCormick, D.A. (2000). Corticothalamic inputs control the pattern of activity generated in thalamocortical networks. *J. Neurosci.* 20(13): 5153-5162.

Chang, D., Zubal, I.G., Gottschalk, C., Necochea, A., Stokking, R., Studholme, C., Corsi, M., Slawski, J., Spencer, S.S., and Blumenfeld, H. (2002). Comparison of Statistical Parametric Mapping and SPECT Difference Imaging in Patients with Temporal Lobe Epilepsy. *Epilepsia*. 43(1): 68-74.

Zaatreh MM, Spencer DD, Thompson JL, Blumenfeld H. Novotny EJ, Mattson RH, Spencer SS. (2002). Frontal lobe tumoral epilepsy: Clinical, neurophysiological features and predictors of surgical outcome. *Epilepsia*. 43(7): 727-733.

Smith AJ, Blumenfeld H. Behar KL, Rothman DL, Shulman RG, Hyder F. (2002). Cerebral

energetics and spiking frequency: The neurophysiological basis of fMRI. *Proc Natl Acad Sci, USA*. 99(16):10765-10770.

Hyder F, Kida I, Smith AJ, Blumenfeld H, Shulman RG, Rothman DL. (2002).

Quantitative fMRI of rat brain by multi-modal MRI and MRS measurements. *International Symposium on Brain Activation and CBF Control (Minoru Tomita Ed.)*. *International Congress Series*, 1235: 57-71.

Motamedi M, Nguyen DK, Zaatreh M, Singh SP, Westerveld M, Thompson JL, Mattson R, Blumenfeld H, Novotny E, Spencer SS. (2003). Levetiracetam efficacy in refractory partial-onset seizures especially after failed epilepsy surgery. *Epilepsia*. 44(2): 211-214.

Weisman D, Hisama FM, Waxman SG, Blumenfeld H. (2003). Going deep to cut the link: Cortical disconnection syndrome caused by a thalamic lesion. *Neurology*. 60 (11): 1865-66.

Blumenfeld, H., Westerveld, M., Ostroff, R.B., Vanderhill, S.D., Freeman, J., Necochea, A., Uranga, P., Tanhehco, T., Smith, A., Seibyl, J.P., Stokking, R., Studholme, C., Spencer, S.S., Zubal, I.G. (2003). Selective frontal, parietal and temporal networks in generalized seizures. *Neuroimage*, 19: 1556-1566.

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