

Curriculum Vitae

Frances Elizabeth Jensen, MD

**PART I: GENERAL INFORMATION**

**Office Address:** Department of Neurology  
Hospital of the University of Pennsylvania  
Dulles 3  
3400 Spruce Street  
Philadelphia, PA 19104

**Phone:** (215) 662-3360

**Email:** frances.jensen@uphs.upenn.edu

**Fax:** (215) 662-3362

**Place of Birth:** Connecticut, USA

**Education/Degrees:**

1978	A.B. <i>cum laude</i> and Highest Honors (Neuropsychology) Smith College Northampton, MA
1983	M.D. Cornell University Medical College New York, NY
2007	M.A. Medical Sciences (Honorary) Harvard Medical School Boston, MA

**Postdoctoral Training:**

**Internships and Residencies**

1983-1984	Internship in Internal Medicine Brigham and Women's Hospital Boston, MA
1984-1986	Assistant Resident in Neurology The Harvard Longwood Neurology Training Program Boston, MA
1986-1987	Chief Resident in Neurology The Harvard Longwood Neurology Training Program Boston, MA

**Research Training**

1976-1980	Research Associate University of Massachusetts, Amherst, MA
1981-1983	Research Associate

Children's Hospital  
Boston, MA

1987-1989      Research Fellow  
Neuroscience Division  
Children's Hospital  
Boston, MA

**Licensure and Certification:**

1984              National Board of Medical Examiners  
1987              Massachusetts Board of Registration, permanent license  
1988              American Board of Psychiatry and Neurology (Neurology)  
2012              Pennsylvania Board of Registration, permanent license

**Academic Appointments:**

1983-1984      Clinical Fellow in Internal Medicine  
Harvard Medical School  
Boston, MA

1984-1987      Clinical Fellow in Neurology  
Harvard Medical School  
Boston, MA

1987-1992      Instructor in Neurology  
Harvard Medical School  
Boston, MA

1992-1998      Assistant Professor of Neurology  
Harvard Medical School  
Boston, MA

1993-present   Faculty, Program in Neurobiology  
Harvard Medical School  
Boston, MA

1998-2007      Associate Professor of Neurology  
Harvard Medical School  
Boston, MA

2007-2012      Professor of Neurology  
Harvard Medical School  
Boston, MA

2008-2012      Faculty, Biological and Biomedical Sciences Program  
Harvard Medical School  
Boston, MA

2011-2012      Endowed Neuroscience Research Chair  
Children's Hospital Boston  
Boston, MA

2012-present   Visiting Professor of Neurology

Harvard Medical School  
Boston, MA

2012-present Professor of Neurology  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

**Hospital or Affiliated Institution Appointments:**

**Harvard Medical School and related institutions**

1989-1998 Assistant in Neurology  
Children's Hospital  
Boston, MA

1987-1993 Assistant in Neurology  
Brigham and Women's Hospital  
Boston, MA

1993-2012 Associate in Neurology  
Brigham and Women's Hospital  
Boston, MA

1998-2012 Associate in Neurology  
Children's Hospital  
Boston, MA

2005-2008 Associate Staff, Pediatrics/Neurology  
Tufts-New England Medical Center, Floating Hospital  
Boston, MA

2006-2012 Director of Epilepsy Research  
Department of Neurology  
Children's Hospital  
Boston, MA

2009- 2012 Director of Translational Neuroscience  
Children's Hospital  
Boston, MA

**University of Pennsylvania/ Perelman School of Medicine**

2012-present Chair, Department of Neurology  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

2012-present Attending in Neurology  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

- 2012-present    Steering Committee  
Mahoney Institute for Neurosciences  
University of Pennsylvania  
Philadelphia, PA
- 2015-present    Co-director Penn Medicine Translational Neuroscience Center  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA
- 2016-present    Member, Neuroscience Steering Committee  
University of Pennsylvania  
Philadelphia, PA

**Hospital and Health Care Organization Service Responsibilities:**

**Harvard Medical School and related institutions**

- 1987-1991    Preceptor and Attending  
Resident's Outpatient Neurology Clinic (weekly clinics)  
Brigham and Women's Hospital  
Boston, MA
- 1987-1991    Attending  
Consult and Inpatient Service, Neurology (1 month per year)  
West Roxbury VA Medical Center  
West Roxbury, MA
- 1987- 2012    Attending  
Neurology Outpatient Clinic  
Children's Hospital  
Boston, MA
- 1987- 2012    Attending  
Neurology Outpatient Clinic  
Brigham and Women's Hospital  
Boston, MA
- 1991-2006    Attending  
Consult and Ward Service, Neurology  
Brigham and Women's Hospital  
Boston, MA
- 1994-1996    Director  
Cerebrovascular Service, Department of Neurology  
Brigham and Women's Hospital  
Boston, MA

**University of Pennsylvania/ Perelman School of Medicine**

- 2013-present    Preceptor, Resident's Clinic  
Department of Neurology

- Hospital of the University of Pennsylvania
- 2013-present    Attending, Neurology inpatient consult service  
Department of Neurology  
Hospital of the University of Pennsylvania
- 2015-present    Co-director Penn Medicine Translational Neuroscience Center  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

**Major Administrative Responsibilities:**

**Harvard Medical School and related institutions**

- 1987-1995      Residency Selection Committee  
Harvard Longwood Neurology Residency Program
- 1993-1998      Institutional Animal Care and Use Committee  
Children's Hospital  
Boston, MA
- 1993-1994      Member, 1994 Symposia Committee  
American Epilepsy Society
- 1994-1997      Member, Standards Committee  
Department of Neurology  
Children's Hospital  
Boston, MA
- 1995            Co-Director  
Harvard Medical School  
Continuing Education Course on Cerebrovascular Disease, 4/95
- 1996            Director  
Harvard Medical School  
Continuing Education Course on Cerebrovascular Disease, 4/96
- 1996-1998      Organizer, Departmental Weekly Journal Club/Lab Results Seminar,  
Division of Neuroscience  
Children's Hospital  
Boston, MA
- 1996-2000      Affirmative Action Representative for Faculty Search Committees,  
Department of Neurology  
Children's Hospital  
Boston, MA
- 1996            Member, New Faculty Search Committee  
Division of Neuroscience  
Children's Hospital

Boston, MA

1997 Director  
Harvard Medical School  
Continuing Education Course on Cerebrovascular Disease, 5/97

1997 Member, New Faculty Search Committee  
Division of Neuroscience  
Children's Hospital  
Boston, MA

1998-2012 Member, MD/PhD Mentoring Program  
Harvard Medical School

1998 Director  
Harvard Medical School  
Continuing Education Course on Cerebrovascular Disease, 10/98

2000 Director  
Harvard Medical School  
Continuing Education Course on Cerebrovascular Disease, 5/00

2001 Member, New Faculty Search Committee  
Division of Neurophysiology  
Children's Hospital  
Boston, MA

2003-2008 Organizer, Kirby Symposium  
Program in Neuroscience  
Children's Hospital  
Boston, MA

2006- 2009 Scientific Advisory Board  
Clinical Research Center  
Children's Hospital, Boston

2006-2012 Director Epilepsy Research  
Department of Neurology  
Children's Hospital, Boston

2007 Member, New Faculty Search Committee  
Division of Neonatology, Pediatrics  
Children's Hospital, Boston

2008 Member, New Faculty Search Committee  
Department of Neurology  
Children's Hospital, Boston

2008 Chair, Search Committee  
Newborn Imaging Director recruitment  
Children's Hospital, Boston

2008-2009 Chair, Ad Hoc Promotions Committee  
Harvard Medical School

2009-2012 Director Translational Neuroscience  
Children's Hospital, Boston

**University of Pennsylvania/ Perelman School of Medicine**

2012-present Chair, Department of Neurology  
Perelman School of Medicine  
University of Pennsylvania

2012- present Steering Committee  
Mahoney Institute for Neurosciences  
University of Pennsylvania

2012- present Faculty, Neuroscience Graduate Group  
Perelman School of Medicine  
University of Pennsylvania

2015-present Co-Director, Penn Medicine Translational Neuroscience Center  
Perelman School of Medicine  
University of Pennsylvania

**Major Committee Assignments:**

**Hospital of the University of Pennsylvania/Perelman School of Medicine**

2012- CPUP Board of Directors  
2012- Penn Medicine Neuroscience Center, Steering Committee  
2013- CPUP Compensation Committee  
2013- Neurosciences Service Line, Steering Committee  
2013- Dean's Development Leadership Council  
2014- CPUP Executive Board (CPEC)  
2015 Member, Search Committee for Psychiatry Chair  
2015- Steering Committee  
Virtua/Penn Medicine Executive Steering Committee  
2016- Member, Managed Care Committee  
2016-2017 Member, Internal Review Committee, Department of Obstetrics and Gynecology  
Review  
2017- Member, New Patient Pavilion Planning Steering Committee

**Children's Hospital Boston**

1993-1996 Standards Committee, Member, Children's Hospital Neurology Foundation  
1993-1998 Institutional Animal Care and Use Review Committee, Member  
2006-2009 General Clinical Research Center Scientific Advisory Board Member  
2006-2007 Intellectual Property Office Development Committee, Member  
2008-present Translational Research Review Committee Member  
2010 Chair, Neonatal Neurology Task Force

**Federal Drug Administration**

- 2009 Advisory Panel Member, Vigabatrin for Infantile Spasms  
2009 Advisory Panel Member, Vigabatrin for Partial Seizures

### **Harvard Medical School**

- 2008-2009 Neuroscience Strategic Planning Group, HMS Strategic Plan  
2008-2012 Member CTSA Pilot Grants Section  
2009-2012 Co-director, Harvard Medical School-Portugal Program  
2009-2012 Co-Director, Harvard Catalyst Intensive Translational T1 Medicine Course  
2011-2012 Member, Joint Library Committee, Francis Countway Library  
2011-2012 Mentor Committee, Clinical Scholar's Program, Harvard Medical School  
2011-2012 Review Committee, KL2 Mentored Career Award Program, Harvard Catalyst, Harvard Medical School  
2012-present Member, External Advisory Board, Harvard Catalyst CTSA

### **Institute of Medicine/National Academy of Medicine**

- 2004 National Academies/IOM U.S. National Committee, International Brain Research Organization. Speaker and Chairperson, Instructional Course, The Neurobiology of Epilepsy, Rhodes University, Grahamstown, South Africa, 9/04.  
2010-2012 Chaired organizing committee for petition and support for the creation of an IOM report: "Public Health Dimensions of the Epilepsies" (published 3/29/12)  
2011 IOM committee meeting, Invited speaker: "Advances in Epilepsy" Institute of Medicine, Committee for IOM Report on Epilepsy Washington, DC, 1/11  
2011 Public testimony contributor, workshop for Committee for IOM Report on Epilepsy, 6/11  
2012-present Member, Neuroscience Forum  
2013-2014 Working Group Essential Medications in Sub-Saharan Africa, Addis Abbaba, Ethiopia, 1/14  
2014 Chairperson, IOM Forum Workshop on Neuromodulation and TMS/TDCS  
2015 Chairperson, IOM Forum Workshop- Neuroscience Trials of the Future  
2015 Member, National Academy of Medicine

### **National Institutes of Health**

- 1995 Neurological Sciences 2 study section, Ad hoc reviewer, 10/95  
1996 Neurology A Study section, Ad hoc reviewer, 2/96  
1996-1998 Neurological Sciences 2 Study Section, Regular Member  
1998-2001 Brain Disorders and Clinical Neurosciences 2 (BDCN-2) Study Section, Regular Member  
2002 NINDS Microarray Workshop and Advisory Committee, Member, 9/03  
2003 NINDS Models II Workshop and Advisory Committee, Member, 10/03  
2004 NINDS Pediatric Epilepsy Models Workshop and Advisory Committee, Member, 5/04  
2004 Developmental Brain Disorders Study Section, Ad hoc reviewer, 11/04  
2005 NINDS Anticonvulsant Therapeutics Workshop reporting to the trans-NIH Bioterrorism Research Coordinating Committee, 2/05  
2005 NINDS Molecular Cellular Developmental Neurosciences Special Emphasis Study Section  
2005-2007 Organizing Committee, NINDS CURE Epilepsy Conference 2007 Section Chairperson  
2006 Organizing Committee, NINDS Workshop on Biomarkers of Epileptogenesis 9/06



---

2006	Organizing Committee and Chairperson, NINDS Workshop on Models of resistant epilepsy and epileptogenesis, 11/06
2006	ZNS1 SRB-M K99R00 Study Section, Reviewer, 7/06
2007	Chair, Epileptogenesis Section and member, Organizing Committee Curing Epilepsy II Conference 3/07
2007	ZNS1 SRB-M K99R00 Study Section, Reviewer, 4/07
2008-2011	NINDS DBD Study Section Regular Member
2009	NICHD IDDRCP Special Advisory Panel Member, NICHD Council
2009	NIH/CSR Distinguished Editorial Panel Member for Stage II oversight of Challenge Grant Review, ZRG-BDCN 7/09
2010	Organizing Committee and Chairperson, NINDS Anti-epileptogenesis Workshop, 8/10
2011-2015	Council Member, NICHD
2011	Inter-institutional Committee on Advancement for Research in Epilepsy (iCARE), NINDS, 6/11
2012	Inter-institutional Committee on Advancement for Research in Epilepsy (iCARE), NINDS, 6/12
2014	Member, Board of Scientific Counselors, Intramural Program Review (NINDS), 3/14
2014-2016	Member, Multi-Council Working Group for the BRAIN initiative, NIH
2015	Organizing Committee, NINDS Tuberous Sclerosis Workshop, 3/15
2015-2020	Scientific Advisory Board, NICHD
2017	NIH CNNT Study Section, Ad Hoc Member, 2/17

#### **National Science Foundation**

1991 Ad hoc reviewer

#### **Israel Science Foundation**

2004 Ad hoc reviewer, research grants

#### **Society for Neuroscience**

2002-2006 Program Committee  
2003 Neurobiology of Disease Workshop: Neurobiology of Epilepsy  
2003-2007 Continuing Medical Education Committee, Chair  
2003-2005 Neuroethics Committee  
2006-2007 Chair, Program Committee  
2008-2012 Member, SFN Council  
2010-2012 Co-Chair Professional Development Working Group  
2011 Member, Frontiers in Neuroscience Planning Committee  
2011-2012 Co-Chair Web Advisory Group  
2012-2014 Member, Scientific Advisory Board, One Mind for Research  
2012-2015 Member, Public Policy Working Group  
2013- Member, Ralph W. Gerard Prize in Neuroscience Selection Committee  
2014- Member, Gruber Prize Selection Committee  
2015- Chair, Public Education and Communications Committee

#### **American Epilepsy Society**

1993-1994 Annual Meeting Committee member, Scientific Program  
1995-1997 Long Range Planning Committee, Member  
1996-present Continuing Medical Education Committee, Member  
1996-2000 Student and Resident Education Committee, Member  
1998 Grant Awards Review Committee, Member, American

Epilepsy Society/Epilepsy Foundation of America  
2000-2003 Chair, Continuing Medical Education Annual Meeting Committee  
2002-2004 Research and Training Committee  
2003-2006 Chair, Council on Education  
2005-2007 Organizer, African Scholars Program, American Epilepsy Society and International Brain Research Organization  
2006-2009 Chair, Merritt Putnam Symposium  
2007- 2008 Chair, Advocacy Committee  
2007-present Member, Board of Directors  
2009-2010 Second Vice President  
2010-present Co-Chair Vision 20:20  
2010-2011 Vice President  
2011-2012 President  
2012-2013 Past President  
2013-2015 Member, Nominating Committee  
2014 Chair, Nominating Committee  
2014-2017 Member, Development Committee  
2014-2018 Trustee Lennox and Lombroso Trust

**Citizens United for Research on Epilepsy (CURE)**

2002-2008 Review Board, Research Grants  
2005-2009 Scientific Advisory Board

**Epilepsy Phenome Genome Project, NINDS**

2004-2013 Advisory Committee, Member

**Brandeis University**

2005-2008 Advisory Committee, Neurobiology of Disease Program

**Epilepsy Therapy Development Project**

2005-2011 Scientific Advisory Board, Member

**International League Against Epilepsy**

2006-2008 Education Committee, Basic Science Commission  
2009-2011 Member, North American Commission Committee  
2012 Member, International Epilepsy Congress Advisory Committee

**Kavli Foundation**

2016 Future of the Brain Initiative Work Group

**Tuberous Sclerosis Alliance International Scientific Advisory Board (ISAB)**

2006-2009 Advisory Committee, Member

**American Neurological Association**

2007-2010 Nominating Committee, Member  
2010-2012 Scientific Program Committee, Member  
2013-2015 Long Term Planning Committee  
2015- Chair, Professional Development Committee  
2016 Member, Board of Directors

**University of Massachusetts Medical School**

2016 Member, External Advisory Board, Department of Neurology Review

**Roche, Inc**

2011-2013 Data Safety Monitoring Board, Clinical Study

**American Academy of Neurology**

2003- Member, Epilepsy Section

2012 Co-Chair, Joint AES/AAN Task Force for IOM Report Response

**Professional Societies:**

1979- Sigma Xi

1986- American Academy of Neurology

1986- Massachusetts Medical Society

1988- Society for Neuroscience

1989- American Epilepsy Society

1990- 2012 Boston Society for Psychiatry and Neurology

1994- Stroke Council, American Heart Association

2003- American Neurological Association

2004- Child Neurology Society

2009- American Pediatric Society

2009 Fellow, American College of Physicians

2011 Member, Roxbury Medical Improvement Society

2012- Member, Philadelphia Neurological Society

2012- John Morgan Medical Society

2013- College of Physicians, Philadelphia, PA

2015- National Academy of Medicine

**Community**

**Service/Advocacy Related to Professional Work:**

1996 Hospital Housing Program for patient's families, Boston, MA

2000-2002 Visiting Teacher, Neuroscience, Fessenden School, Newton, MA

2002-2008 Visiting Teacher, Neuroscience, Noble and Greenough School, Dedham, MA

2004-2005 Visiting Teacher, Greenwich Academy, Greenwich CT

2009 Brief of Petitioner-Appellant, Terrance Jamar Graham v State of Florida, No. 08-7412; Joe Harris Sullivan v State of Florida, No. 08-7621

2010 Organizer of request for Institute of Medicine Report on Epilepsy, granted commissioned in 10/10, first Committee meeting on the Public Health Dimensions of the Epilepsies, 1/10/11

2011-2015 One Mind for Research, Scientific Advisory Board member

2012 Brief Petitioner-Appellant, Evan Miller v State of Alabama, No. 10-9646; Kuntrell Jackson v State of Arkansas, No.10-9647

2013-2015 Board of Trustees, The Franklin Institute, Philadelphia, PA

**Media and Speaking Events Related to Professional Work (selected from over 100 lectures)**

2005 Hall Fellow, Lecturer, "Understanding the Teenage Brain" Concord Academy, Concord MA

2007 Special Lecturer: "Understanding the Teenage Brain", Noble and Greenough School, Dedham, MA

2008 Lecturer: "The Teenage Brain", Life Science Series, Museum of Science, Boston, MA

2008 Commentary, "Addiction in the teenage brain", The Today Show" NBC, 12/11/08

2009 Commentary, "Epilepsy" 60 Minutes CBS, 10/25/09

- 
- 2010 Commentary, "The Teen Brain" Morning Edition, National Public Radio, 3/1/10
- 2010 Special Lecturer, "Neuroscience of the teen brain" Buckingham Browne and Nichols School, Cambridge, MA 4/10
- 2010 Lecturer, "Teen Brain 101", Lexington Community Center, Lexington High School, Lexington, MA
- 2010 Lecturer, "The Adolescent Brain: What is myth and what is fact?", Hamilton, MA
- 2010 Commentary, "The Teen Brain", ABC Good Morning America, 10/3/10
- 2012 Keynote Speaker, Public Policy Institute, Epilepsy Foundation Washington DC, 4/12
- 2012 Neuro-Caucus, Capitol Hill, Keynote Speaker, The New Neurology, Washington, DC 6/12
- 2012 Brief Petitioner-Appellant, *Evan Miller v State of Alabama*, No. 10-9646; *Kuntrell Jackson v State of Arkansas*, No.10-9647
- 2013 Featured Speaker, Rape Treatment Center/Santa Monica-UCLA Medical Center "Using Knowledge About the Teenage Brain to Help Kids Make Wise Choices" Los Angeles, CA 1/31/13
- 2015 NPR featured guest on "Fresh Air" 1/6/15- The Teenage Brain
- 2015 NPR featured guest on "Radio Times" 6/15- The Teenage Brain
- 2015 NPR featured guest on "Diane Rheim Show" 9/15 - The Teenage Brain
- 2015 Featured guest, MSNBC "Morning Joe" 3/15- The Teenage Brain
- 2015 Keynote Speaker, Chatauqua Institute 7/8/15 – Teenage Behavior
- 2015 Keynote Speaker, "Adventures of the Mind", Philadelphia, PA, 8/15
- 2015 Keynote Speaker other venues: Franklin Institute, Philadelphia, PA 5/15, Concord Academy, Concord, MA 10/15, Colony Club, NY, 10/15, Tabor Academy, MA, 10/15, One World Community Health Center, Omaha, NE, 11/15, Princeton Public Library, NJ 11/15,
- 2015 UNICEF Thought Leaders Series Speaker, "The Adolescent Brain", NY, NY 11/15
- 2015 Speaker, Congressional Caucus Briefing on the Teenage Brain, US Congress, Washington, DC, 12/15
- 2016 Keynote Speaker, YPO (Young President's Organization), Raising Successful Children, Houston, TX 2/16
- 2016 Keynote Speaker, The Aspen Institute, "Neuroscience of Adolescence", Aspen, CO 6/16
- 2016 Keynote Speaker, other venues: Annenberg Institute, UPenn, 1/16, Penn Charter School, 2/16, Noble and Greenough School, Dedham, MA 2/16, Episcopal School, PA, 3/16, Bryn Mawr College, PA, 3/16, Agnes Irwin School, PA, 5/16, Child Mind Institute, NY, NY, 5/16, Loyola School, Chicago, IL, 9/16, St. Louis Penn Club, MO, 9/16, Penn Libraries, NY, 10/16
- 2016 Speaker, Pennsylvania Epilepsy Foundation Conference, 10/16
- 2016 Speaker, Virginia Festival of the Book, 3/16
- 2016 Presidential Speaker, American College Health Association, San Francisco, CA, 6/16
- 2016 Keynote Speaker, College Admissions Association Annual Meeting, Columbus, OH, 9/16
- 2016 Plenary Speaker, Pennsylvania Conference on Juvenile Justice, Harrisburg, PA 11/16
- 2017 NPR featured guest on "Forum", KQED, San Francisco, CA, 5/17
- 2017 Keynote Speaker, San Francisco City Arts Series, San Francisco, CA, 5/17
- 2017 Keynote Speaker: other venues: Christian Boys School, Memphis, TN 3/17, Asheville School, NC, 5/17, Penn Fairfield County Alumni Assoc, 4/17
- 2017 Keynote Speaker, National Teachers Association Annual Meeting, Los Angeles, CA 5/17
- 2017 Speaker, Educational Writers Association Annual Meeting, Washington, DC, 6/17

2017 Keynote speaker, The Annapolis Group, Annapolis, VA 6/17

**Editorial Boards:**

1992-	Ad hoc reviewer	<i>Life Science</i>
1993-	Ad hoc reviewer	<i>Annals of Neurology</i>
1993-	Ad hoc reviewer	<i>Epilepsia</i>
1994-	Ad hoc reviewer	<i>Journal of Neurochemistry</i>
1994-	Ad hoc reviewer	<i>New England Journal of Medicine</i>
1995-	Ad hoc reviewer	<i>Brain Research</i>
1995-	Ad hoc reviewer	<i>Developmental Brain Research</i>
1995-	Ad hoc reviewer	<i>Pediatric Research</i>
1996-	Ad hoc reviewer	<i>Neuroscience</i>
1997-	Ad hoc reviewer	<i>Journal of Neurophysiology</i>
1997-	Ad hoc reviewer	<i>Journal of Neuroscience</i>
2001-	Ad hoc reviewer	<i>Pharmacology and Behavior</i>
2001-	Ad hoc reviewer	<i>Stroke</i>
2002-	Ad hoc reviewer	<i>Brain Research Bulletin</i>
2002-	Ad hoc reviewer	<i>European Journal of Neuroscience</i>
2002-	Ad hoc reviewer	<i>Experimental Neurology</i>
2003-	Ad hoc reviewer	<i>Journal of Comparative Neurology</i>
2003-	Ad hoc reviewer	<i>Neurobiology of Disease</i>
2005-	Ad hoc reviewer	<i>Journal of Neuroscience Research</i>
2007-	Editorial Board Member	<i>Annals of Neurology</i>
2012	Ad hoc reviewer	<i>Brain</i>
2011-	Reviewing editor	<i>Journal of Neuroscience</i>

**Awards and Honors:**

1978	Highest Honors, Smith College Honors Thesis
1979	Sigma Xi
1987-1992	Physician Scientist Award, NICHD, NIH
1992	American Epilepsy Society Travel Award
1992-1997	FIRST Award, NINDS, NIH
2002	William Campbell Felch Award for Excellence in Continuing Medical Education Research, Alliance for Continuing Medical Education
2003	Lennox Lecturer, American Epilepsy Society
2004	Distinguished Alumni Award, Greenwich Academy, CT
2007-2010	Chair, Merritt Putnam Symposia, American Epilepsy Society
2007	Presidential Symposium lecturer, American Epilepsy Society
2007	Master's Degree (Hon) Harvard University
2007-2012	Director's Pioneer Award, GMS, NIH
2008	Swebalius Lecturer, Yale University
2008	Kellaway Lecturer, Baylor School of Medicine
2008	American Epilepsy Annual Research Recognition Award for Basic Science
2009	Grass Traveling Lecturer, Society for Neuroscience, CT Chapter
2009	Lothman Lecturer, University of Virginia Medical School
2009	Tizard Lecturer, University of Bristol, UK
2009	Fellow, American College of Physicians
2010	Denny Brown Lecturer, Boston Society of Psychiatry and Neurology
2010	Donald Baxter Lecturer, McGill University, Montreal, Canada
2011-2012	Endowed Neuroscience Research Chair, Children's Hospital Boston
2013	Sprague Lecturer, MINS, University of Pennsylvania, Philadelphia, PA

2014	Stinnett Honorary Lecturer, Department of Psychiatry, University of Pennsylvania, Philadelphia, PA
2014	Commencement Keynote Speaker, Temple University, Philadelphia, PA
2014	Hoyer Lecture, American Epilepsy Society Annual Meeting, Seattle, WA
2015	Member, Dana Foundation
2015	Member, National Academy of Medicine
2016	Philip Dodge Lecturer, Washington University, MO
2016	Presidential Lecturer, 2016 Society for Neuroscience Annual Meeting
2017	Kirshner Lecturer, Vanderbilt University, Nashville, TN

**PART II: RESEARCH, TEACHING, AND CLINICAL CONTRIBUTIONS**

**A. Funding Information**

**Research Funding:**

**NIH Funding (direct costs only listed):**

1987	NIH-NINDS	NRSA	PI	Synaptic Recovery after Cortical Ischemia (awarded but not used due to receipt of KO8)
1987-1992	NIH-NICHD	KO8	PI	Physician Scientist Award: Postischemic Mental Retardation: Reversing Neuron Damage
1992-1995	NIH-NICHD	PO1	Jensen Project PI, Volpe overall PI	Ischemic Neonatal: Clinical and Basic Science, Project 5: Ischemia Injury and Seizures in the Neonatal Rat Brain
1992-1997	NIH-NINDS	R29	PI	FIRST Award: Perinatal Hypoxia/Ischemia Model of Mental Retardation and Epilepsy \$99,626 per year
1993-1997	NIH-NINDS	PO1	Jensen Project PI, Volpe overall PI	Project 5: Postischemic MR: Reversing Neuron Damage \$56,834 per year
1997-2002	NIH-NINDS	RO1	PI	Epileptogenic Effects of Perinatal Hypoxia \$860,181/5yrs
1999-2004	NIH-NINDS	PO1	Jensen project PI, Volpe overall PI	Periventricular Leukomalacia in the Premature Infant, Project 4: Excitotoxic Injury to Developing Oligodendrocytes \$608,994/5 yrs
2002-2007	NIH-NINDS	RO1	PI	The Epileptogenic Effect of Perinatal Hypoxia \$1,110,869/5 yrs
2005-2010	NIH-NINDS	PO1	Jensen project PI, Volpe overall PI	Periventricular Leukomalacia in the Premature Infant, Project 3: Excitotoxic Injury to Developing Oligodendrocytes \$160,195 per year

2005-2010	NIH-NINDS	RO1	Jensen Co-PI , Staley, PI	
	Impact of neuronal Cl transporters on the treatment of epilepsy			\$50,000 per year
2007-2013	NIH-GMS	Director's Pioneer Award	PI	
	Understanding the Cognitive Consequences of Early Life Epilepsy			\$560,000 per year
2007-2013	NIH-NINDS	RO1	PI	
	Epileptogenic effects of Perinatal Hypoxia			\$225,000 per year
2009-2010	NIH-Harvard Catalyst Grant		Jensen Co-PI, Soul, PI	
	Phase I clinical trial of bumetanide in neonatal seizures			\$50,000 per year
	2009-2011 NIH – Challenge ARRA	RC1	PI	
	Mechanism of vigabatrin-induced retinal toxicity			\$320,000 per year
2010-2015	NIH- NINDS	RO1	Jensen Co-PI, Soul PI	
	Phase I clinical trial of bumetanide in neonatal seizures			\$350,000 per year
2010-2015	NIH-NINDS	R25	PI	
	Residency research training program			\$150,000 per year
2011-2018	NIH-NINDS	UO1	Jensen Co-PI, Darras PI	
	NeuroNEXT clinical site			\$300,000 per yr
2012-2017	NIH-NINDS	P20	PI (Multi-PI)	
	Epilepsy Biomarker Planning Grant			
2012-2014	NIH-NINDS	R21	PI	
	Bumetanide as add-on therapy in Tuberous Sclerosis			\$125,000 per year
2013-2018	NIH-NINDS	R01	PI (Multi-PI)	
	Early Life Seizures Disrupt Critical Period Plasticity			\$300,000 per year
2013-2015	NIH-NINDS	R56	PI	
	Epileptogenic effect of perinatal hypoxia			\$300,000
2015-2020	NIH-NINDS	T32	PI (Multi-PI)	
	Remapping neurology through translation and innovation			\$129,000 (year 1) \$264,000 (yr 2-5)

**Private Foundations and National Associations:**

1989-1990	William Randolph Hearst Fund	PI	
	Epileptogenic Effect of Hypoxia		
1989-1992	Kaplan Foundation	PI	
	Neonatal Seizures		
1992-1993	Milton Fund	PI	
	Hypoxic Neuronal Injury		

---

1992-1993	Charles Hood Foundation The Acute and Long Term Anti-Convulsant Efficacy of Novel Excitatory Amino Acid Antagonists in a Model of Hypoxia-Induced Neonatal Seizures	PI
1993-1994	Epilepsy Foundation of America Anticonvulsant Action of PQQ; A Novel Modulatory Agent at the NMDA Receptor Redox Site	PI
1993-1994	Kaplan Foundation Neonatal Seizures	PI
1995-1996	William Randolph Hearst Fund Epileptogenic Effect of Hypoxia	PI
1993-1996	American Heart Association Grant-In-Aid: Neuroprotective Effect of PQQ in an Animal Model of Stroke	PI
1997-1998	William Randolph Hearst Fund Alterations in Neuronal Excitability and Gene Expression After Perinatal Hypoxia	PI
2000-2002	United Cerebral Palsy Association Glutamate-Mediated Oligodendrocyte Injury in Periventricular Leukomalacia	PI
2000-2002	Charitable Leadership Foundation Therapeutic Potential of Bioquinones in the Treatment of Stroke and Epilepsy	PI
2000-2004	Robert Wood Johnson Foundation The Antiepileptogenic and Neuroprotective Effects of Topiramate in a Rat Model of Perinatal Seizures	PI
2005-2007	United Cerebral Palsy Association The Protective Role of Metabotropic Glutamate Receptors in Periventricular Leukomalacia	PI
2005-2007	The Epilepsy Project Antiepileptogenic and Neuroprotective Properties of Talampanel in Neonatal Brain Injury	PI
2005-2007	Tuberous Sclerosis Alliance Novel Role of NMDA Receptors in TSC	PI
2007-2008	Parents Against Childhood Epilepsy (PACE) Rapid post-translational modification of glutamate receptors in early life seizures: A novel target for antiepileptogenesis	PI
2011-2015	Hope for Harper Foundation Regulating epilepsy in CDKL5 disorder	PI
2016-2018	Penn Orphan Disease Center CDKL5 Program of Excellence Pilot Grant	PI



**Industry Supported Investigator Initiated Awards**

2006-2008	UCB Pharma Efficacy of Levetiracetam in Neonatal Seizures
2009-2011	Lundbeck Pharma Efficacy of Bumetanide in preventing Vigabatrin-induced retinal toxicity
2011-2012	Neurotherapeutix Efficacy of novel GABA receptor modulators in epilepsy
2012-2017	Esai Pharma Perampanel as a treatment of neonatal seizures

**Funding For Trainees:**

**NIH funding:**

1993-1996	NRSA (NINDS) postdoctoral fellowship Advisor/Sponsor for Carl Wang, PhD
1997-2001	NRSA (NINDS) postdoctoral fellowship Advisor/Sponsor for Russell Sanchez, PhD
1998-2003	KO8 (NICHD) Mentored Clinician Scientist Award Sponsor for SookyongKoh, MD, PhD
2000-2005	KO8 (NINDS) Mentored Clinician Scientist Award Sponsor for Pamela Follett, MD
2003-2005	NRSA (NINDS) postdoctoral fellowship Advisor/Sponsor for Wenbin Deng, PhD
2004-2005	NRSA (NINDS) postdoctoral fellowship Advisor/Sponsor for MirnaLechpammer, MD, PhD
2006-2011	KO8 (NINDS) Mentored Clinician Scientist Award Advisor/Sponsor for Alexander Rotenberg, MD, PhD
2007-2008	NRSA (NICHD) postdoctoral fellowship Advisor/Supervisor for Debra Selip, MD
2008-2009	NRSA (NICHD) postdoctoral fellowship Advisor/Supervisor for Xiangping Zhou, MD, PhD
2008-2009	NRSA (NINDS) postdoctoral fellowship – F32 Advisor/Supervisor for Jocelyn Lippman, PhD
2009-2011	NRSA (NICHD) postdoctoral fellowship Advisor/Supervisor for Chengwen Zhou, PhD
2009-2011	NRSA (NICHD) postdoctoral fellowship Advisor/Supervisor for Jenny Yu, MD

- 2010-2012      NRSA (NINDS) Individual postdoctoral fellowship – F32  
                  Advisor/Supervisor for Jocelyn Lippman, PhD
- 2010-2012      R25 (NINDS) Residency/Fellowship Training Grant Award  
                  Advisor/Supervisor for Soma Sengupta, MD, PhD
- 2011-2012      KL2 (Harvard CTSA/Catalyst) Mentored Career Development Award  
                  Advisor/Supervisor for Mirna Lechpammer, MD, PhD
- 2014-2016      KL2 (UPenn ITMAT) Mentored Career Development Award  
                  Advisor/Supervisor for Ram Balu, MD, PhD

**Department of Defense Funding**

- 2008-2010      Department of the Army Concept Award  
                  Alex Rotenberg, MD, PhD

**Private Foundations and National Associations:**

- 1992            Epilepsy Foundation of America  
                  Sponsor, Medical Student Research for Fellowship for Ginger Gardner, MD
- 1997-1998      Epilepsy Foundation of America  
                  Sponsor, Postdoctoral Research Fellowship for Russell Sanchez, PhD
- 1997-2000      William Randolph Hearst Fund  
                  Supervisor for Pamela Follett, MD
- 1999-2000      Robert Wood Johnson Foundation  
                  Supervisor for SookyongKoh, MD, PhD
- 2002-2003      William Randolph Hearst Fund  
                  Supervisor for Delia Talos, MD
- 2002-2004      Charles Hood Medical Foundation  
                  Supervisor for Pamela Follett, MD
- 2003-2004      Victor Horsley Fellowship, American Epilepsy Foundation  
                  Supervisor for Weimin Dai, MD, PhD
- 2003-2004      William Randolph Hearst Fund  
                  Supervisor for Delia Talos, MD
- 2003-2005      William Randolph Hearst Foundation  
                  Supervisor for Wenbin Deng, PhD
- 2004-2005      American Epilepsy Society/Epilepsy Foundation  
                  Supervisor for Delia Talos, MD
- 2004-2007      Tuberous Sclerosis Alliance  
                  Supervisor for Delia Talos, MD
- 2006-2007      Citizens United for Research in Epilepsy (CURE)  
                  Junior Investigator Award for Alex Rotenberg, MD, PhD

- 2009-2011 Citizens United for Research in Epilepsy Research Award (CURE)  
NikolausSucher, MD
- 2006-2007 Research Grant, William Randolph Hearst Foundation, Advisor/Sponsor for Simon  
Manning, MD
- 2006-2007 Research Grant, Lombroso Research Foundation, Advisor/Supervisor for Delia,  
Talos, MD
- 2009-2010 Early Career Development Grant, Epilepsy Research Foundation/AES,  
Advisor/Mentor for Tobias Loddenkemper, MD
- 2009-2011 Alberta Heritage Foundation for Medical Research  
Advisor/Mentor for Lauren Jantzie, PhD
- 2009-2011 American Academy of Neurology Career Development Award  
Advisor/Mentor for Martina Vendrame, MD, PhD
- 2009-2011 National Science and Engineering Foundation of Canada fellowship  
Advisor/Supervisor for Lauren Jantzie, PhD
- 2009-2011 Citizens United for Research in Epilepsy Junior Investigator Award (CURE)  
Delia Talos, MD
- 2010 Nancy Lurie Marks Foundation Research Internship  
Matthew DeSalvo, BA, Harvard Medical School MD 2013
- 2010-2011 William Randolph Hearst Foundation Research Grant  
Advisor/Supervisor for Lauren Jantzie, PhD
- 2011-2012 Epilepsy Foundation/American Epilepsy Society Postdoctoral Fellowship  
Advisor/Mentor for Hongyu Sun, PhD
- 2011-2012 Baby Alex Foundation Research Grant  
MirnaLechpammer, MD, PhD
- 2011-2013 Canadian Health Institute Research (CHIR) Fellowship  
Advisor/Supervisor for Hongyu Sun, PhD

**Industry sponsored**

- 2008- Neuropace  
Investigator initiated research grant  
Alex Rotenberg, MD, PhD

**B. Report of Current Research Activities**

**Project: Mechanisms of epileptogenesis in the immature brain**

Elucidation of the cellular and molecular mechanisms of epilepsy in the immature brain.  
Evaluation of the role of developmentally regulated glutamate and GABA receptors and ion  
transporters using in vitro cell and slice culture methods, whole cell patch clamp

electrophysiology, calcium imaging, and in vivo models, preclinical assessment of biomarkers and therapeutics, as well as assessment of target expression in human fetal, infant and adult brain tissue.

**Project: Pathogenesis of premature brain injury**

Evaluation of age and cell-specific factors in injury rodent and human white matter. Therapeutic trials targeting glutamate receptor mediated excitotoxicity and downstream activity dependent signaling cascades in neurons and glia using in vivo and in vitro models, as well as target assessment in human tissue.

**Project: Epileptogenic signaling cascades**

Examination of age-specific signaling cascades downstream of glutamate receptors induced by seizures in neurons in immature cortex and hippocampus. These studies include identification of post translational as well as transcriptional events that modify glutamate receptor efficacy, and identify therapeutic targets as a function of time following seizures. In vitro and in vivo seizure models are employed, with validation of altered proteins and therapeutic targets in normal and diseased human tissue. Proteomic analyses with mass spectrometry are included in cell culture and rodent models of epilepsy, as well as proteomic investigation in human tissue.

**Project: Abnormal neurotransmitter receptor expression in Tuberous Sclerosis Complex (TSC) and focal cortical dysplasia**

Evaluation of abnormal patterns of glutamate and GABA receptor expression in cells within FCD, TSC tuber lesions and perituberal tissue that may underlie epileptogenesis in TSC and refractory epilepsy. Parallel studies using human pathology and biopsy samples, and comparison to novel transgenic mouse model of TSC.

**Project: Role of chloride transporters in vigabatrin-induced retinal toxicity**

Determination of cell-specific differences in KCC2 and NKCC1 expression in retina in rodent and human. Preclinical trial of bumetanide in a rodent model of vigabatrin-induced retinal toxicity

**Project: Interaction between epilepsy and autism**

Testing the hypothesis that there are major overlaps in the cascades underlying epileptogenesis and those responsible for cognitive deficits associated with epilepsy. In addition, defining how seizures alter gene and protein expression of factors implicated in the development of autism, including activity mediated and epigenetic mechanisms.

## C. Report of Teaching

### Harvard Medical School and related institutions

#### 1. Local Contributions

##### a. Medical School Courses

- |            |   |
|------------|---|
| 1989-1996  | Tutor: Human Nervous System and Behavior<br>Harvard Medical School(New Pathway Program)<br>7-8 students, 12hours/week, 3.5 months               |
| 2002       | Lecturer: Human Nervous System<br>“Cerebrovascular Disease”<br>Harvard Medical School<br>1 lecture and patient presentation, 50 students, 1 day |
| 2003, 2005 | Lecturer: Human Nervous System  |

1) “Excitotoxicity”; and 2) “Cerebrovascular Disease”  
Harvard Medical School  
2 lectures and patient presentation, 50 students, 1 day per year

**b. Graduate Medical Courses**

1998-1999 Course director: Neurobiology 300 Graduate Seminar Series  
“Mechanisms of Epileptogenesis”  
Harvard Medical School  
8 students, 12hours/week, 3 months

2006 Lecturer: Basic Mechanisms of Epilepsy  
Neuroscience Program  
Brandeis University

2007 Lecturer: Basic Mechanisms of Epilepsy  
Neuroscience Program  
Brandeis University

2009 Lecturer: Novel Therapeutics for Neonatal Seizures  
HST Clinical Neuroscience Course

2009 Lecturer  
Biological and Biomedical Sciences Program Seminar  
Harvard Medical School

2010 Course Co-Director and Lecturer  
Harvard Catalyst Intensive Course in Translational Medicine  
Harvard Medical School

2011 Course Co-Director and Lecturer  
Harvard Catalyst Intensive Course in Translational Medicine  
Harvard Medical School

2012 Course Co-Director and Lecturer  
Harvard Catalyst Intensive Course in Translational Medicine  
Harvard Medical School

2013-2016 Lecturer  
Harvard Catalyst Intensive Course in Translational Medicine  
Harvard Medical School

**c. Harvard Medical School Continuing Education**

1992 Neurology Intensive Review Course, 10/92  
“Vascular Dementia”

1993 Course in Primary Care Medicine, 3/93  
“Stroke”

1993 Brain Injury and Pediatric Cardiac Surgery, 10/93  
“CNS Development: EEG”

1993 Neurology Intensive Review Course, 11/93

- “Stroke”
- 1994 Course in Primary Care Medicine, 3/94  
“Stroke”
- 1994 Neurology for Psychiatrists, 5/94  
“Stroke”
- 1995 Course in Primary Care Medicine, 3/94  
“Stroke”
- 1995 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, 3/95  
“CerebroprotectiveDrugs”  
“Stroke in Cardiac Surgery”
- 1996 Course in Primary Care Medicine, Boston, MA; 3/96  
“Stroke”
- 1996 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, 4/96  
“CerebroprotectiveDrugs”
- 1996 Neurology Intensive Review Course, 9/18/96:  
“CerebroprotectiveDrugs”
- 1997 Course in Primary Care Medicine, 3/97  
“Stroke”
- 1997 Neurology Intensive Review Course, 9/15/97  
“CerebroprotectiveDrugs”
- 1997 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, Boston,  
MA; 5/97  
Instructional courses on “CerebroprotectiveDrugs”
- 1998 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, Boston,  
MA; 10/98  
Instructional courses on “CerebroprotectiveDrugs”
- 2000 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, Boston,  
MA; 5/00  
Instructional courses on “Basic Mechanisms of Stroke”
- 2000 **Course Director:** Comprehensive Review of Cerebrovascular Disorders, Boston,  
MA; 5/00:  
Instructional courses on “CerebroprotectiveDrugs”
- 2000 Neurology Intensive Review Course, 9/00  
“Future directions in stroke therapy”
- 2001 Neurology Intensive Review Course, 10/01:  
“Future Directions in Stroke Therapy”

- 2002 Michael J. Bresnan Child Neurology Course, 9/02  
“Age-specific Mechanisms of Stroke and Epilepsy”
- 2002 Neurology Intensive Review Course, 10/02  
“Future Directions in Stroke Therapy”
- 2003 Neurology Intensive Review Course, 10/03  
“Future Directions in Stroke Therapy”
- 2004 Michael J. Bresnan Course in Pediatric Neurology, 9/04  
“Neonatal Seizures”
- 2006 Michael J. Bresnan Course in Pediatric Neurology, 9/06  
“Mechanisms of epilepsy”
- 2006 Michael J. Bresnan Course in Pediatric Neurology, 9/06  
“Learning and Memory in the Adolescent Brain”
- 2007 Adolescent Medicine Seminar, Pediatrics, Children's Hospital, Boston, 4/07  
“The Paradox of the Adolescent Brian: What Developmental Neuroscience Can Tell Us”
- 2007 Neurophysiology Division Seminar, 6/07  
Brigham and Women’s Hospital  
“Mechanisms of Epileptogenesis in Cortical Malformations”
- 2007 Adolescent Medicine Core Conference, 3/08  
“The Paradox of the Teenage Brain”  
Children’s Hospital Boston
- 2008 Michael J. Bresnan Course in Pediatric Neurology, 9/08  
“Mechanisms of epilepsy”
- 2008 Michael J. Bresnan Course in Pediatric Neurology, 9/08  
“Learning and Memory in the Adolescent Brain”
- 2009 Treating Young Adults Course  
Department of Psychiatry, Harvard Medical School, 4/09  
“The Paradox of the Adolescent Brain”
- 2009 Children’s Hospital Cooperative Seminar  
“The Adolescent Brain”  
Waltham, MA 5/09
- 2010 Michael J. Bresnan Course in Pediatric Neurology, 9/10  
“Learning and Memory in the Adolescent Brain”
- 2013 Intensive Training in Translational Medicine Course  
“Accessing your Department Chair”  
Harvard Medical School, Harvard Catalyst, 6/13
- 2014 Intensive Training in Translational Medicine Course

- “Accessing your Department Chair”  
Harvard Medical School, Harvard Catalyst, 6/14
- 2015 Intensive Training in Translational Medicine Course  
“Accessing your Department Chair”  
Harvard Medical School, Harvard Catalyst, 10/15

**University of Pennsylvania/ Perelman School of Medicine**

- a. Medical and Graduate School Courses, and other faculty educational activities
- 2013 Lecturer, Neurobiology of Disease Course  
“Cognitive Consequences of Epilepsy”, 10/13
- 2013 Lecturer, Neuroscience Seminar Series  
“Mechanisms of Epileptogenesis”
- 2015 Lecturer, Brain and Behavior Course, 3/15  
“Mechanisms of Epilepsy”
- 2015 Speaker, Penn Faculty Pathways Program, 10/15  
“Lessons about Effective Leadership”
- 2015 Speaker, Penn Parent Leadership Board, 10/15  
“The Teenage Brain: Knowledge You Can Use”
- 2016 Speaker, Penn Disability Forum, 3/16  
“Adolescence in the setting of disability”
- 2016 Keynote Speaker,  
“Neurobiology of adolescence and young adulthood”  
Student Affairs Leadership Team Retreat, UPenn, 6/16

**D. Postdoctoral Trainees** (current positions noted):

- 1993-1997 Post-doctoral fellowship Supervisor: Carl Wang, Ph.D.  
(Instructor in Neurology, Harvard Medical School)
- 1996-2001 Post-doctoral fellowship Supervisor: Russell Sanchez, Ph.D.  
(Assistant Professor of Neurology, Univ Texas Southwestern Med School)
- 1998-2002 Postdoctoral Fellowship Supervisor and NIH KO8 Mentor for Sookyong Koh, M.D.,  
Ph.D.  
(Associate Professor of Neurology, Emory University)
- 1997-2005 Postdoctoral Fellowship Supervisor and NIH KO8 Mentor for Pamela Follett, M.D.  
(Assistant Professor of Neurology, Tufts/New England Medical Center)
- 2001-2004 Postdoctoral Fellowship Supervisor: Weimin Dai, M.D., Ph.D.  
(Director of Research, Shanghai Pharmaceuticals Corp, Ltd., China)
- 2001-2006 Postdoctoral Fellowship Supervisor: Wenbin Deng, Ph.D.  
(Assistant Professor, Neuroscience, University of California Davis)
- 2002-2010 Postdoctoral Fellowship Supervisor: Delia Maria Talos, M.D.



(Assistant Professor, Neurology and Neuroscience, New York University  
Medical School, NY, NY)

2004-2006 Postdoctoral Fellowship Supervisor: Hyung-Kyung Park, M.D.  
(Assistant Professor, Asan Medical College, Korea)

2004-2009 Postdoctoral Fellowship Supervisor: Simon Manning, MD  
(Instructor in Pediatrics, Children's Hospital, Boston)

2004-2006 Postdoctoral Fellowship Supervisor: Mirna Lechpammer, M.D., Ph.D.  
(Clinical Fellow, Neuropathology Dept, Children's Hospital Boston)

2005-2006 Postdoctoral Fellowship Supervisor: Chang Joo Park, M.D.  
(Attending Physician, Asan Medical College, Seoul Korea)

2005-2011 Postdoctoral Fellowship Supervisor: Chengwen Zhou, Ph.D.

2005-2012 Postdoctoral Fellowship Supervisor, and Mentor for Junior Investigator Award and NIH  
KO8 Award: Alexander Rotenberg, M.D., Ph.D.  
(Assistant Professor of Neurology, Children's Hospital, Boston/ HMS)

2006-2007 Postdoctoral Fellowship Supervisor, An Li, MD  
(Assistant Professor, Pediatrics, Shanghai Medical University)

2006-present Postdoctoral Fellowship Supervisor: Sanjay Rakhade, PhD  
(Instructor in Neurology, Harvard Medical School)

2006-2008 Postdoctoral Fellowship Supervisor: Debra Selip, MD  
(Assistant Professor, Rush Medical Center, Chicago, IL)

2007-2008 Postdoctoral Fellowship Supervisor: Meayoung Chang, MD  
(Assistant Professor, Seoul Medical College)

2007-2009 Postdoctoral Fellowship Supervisor: Xiangping Zhou, MD, PhD  
(Neurology Resident, Albany Medical College, Albany, NY)

2008-present Postdoctoral Fellowship Supervisor: Lauren Jantzie, PhD  
(Assistant Professor, University of New Mexico)

2008-2010 Postdoctoral Fellowship Supervisor: Martina Vendrame, MD, PhD  
(Assistant Professor, Neurology, Boston University Medical School)

2008-present Postdoctoral Fellowship Supervisor: Jocelyn Lippman, PhD

2008-2011 Junior faculty mentor: Tobias Loddenkemper, MD  
(Assistant Professor, Neurology, CHB)

2009-present Postdoctoral Fellowship Supervisor: Hongyu Sun, PhD

2009-2011 Postdoctoral Fellowship Supervisor: Jenny Yu, MD  
(Assistant Professor, Neonatal Medicine, Johns Hopkins University)

- 2009-2010 Postdoctoral Fellowship Supervisor: Pia Wintermark, MD  
(Assistant Professor, Neonatology, McGill University, Montreal, Canada)
- 2009-2011 Postdoctoral Fellowship Supervisor: Cristina Hilario Gomez, PhD
- 2010-2012 Junior Faculty mentor: Mirna Lechpammer, MD, PhD (NIH KL2)  
(Assistant Professor, Neuropathology, University of California, San Diego)
- 2011-2012 R25 Postdoctoral Fellowship mentor: Soma Sengupta, MD, PhD  
(Instructor, Neurology, Beth Israel Deaconess Hospital, Boston, MA)
- 2011-2012 Postdoctoral Fellowship Supervisor: Makram Obeid, MD  
(Assistant Professor, Barrow Neurological Institute, Phoenix, AZ)
- 2014-present Postdoctoral Fellowship Supervisor: Ram Balu, MD, PhD
- 2016-present Postdoctoral Fellowship Supervisor, Sarah Gourmaud, PhD

**E. Predoctoral trainees (current positions noted):**

**Harvard Medical School and related institutions**

- 1987-1989 Premedical tutor, Winthrop House, Harvard University
- 1991 Supervisor, Medical Student Independent study project, Boston University Medical School: Ginger G. Gardner, M.D.  
(Resident, Obstetrics and Gynecology, Johns Hopkins Medical School)
- 1992 Supervisor, Independent study project, Department of Biology, Harvard University: Ashura P. Williams (Investigator, NIMH)
- 1992 Supervisor, Epilepsy Foundation Medical Student Fellowship: Ginger G. Gardner, M.D. (Resident, Obstetrics and Gynecology, Johns Hopkins Medical School)
- 1993-1994 Thesis Advisor, Undergraduate Honors Thesis, Department of Psychology, Harvard University: Mary Carol Stevens. BA  
(Resident tutor, Harvard University)
- 1993-1994 Thesis Advisor, Undergraduate Honors Thesis, Department of Biology, Harvard University: Neal Sondheimer  
(Assistant Professor, Pediatrics, University of Pennsylvania)
- 1993-1994 Supervisor, Medical Student Independent Project, Harvard Medical School: Heidi Blume, M.D. (Assistant Professor, Pediatrics, Univ. of Washington)
- 1995-1996 Thesis Advisor, Undergraduate Honors Thesis, Department of Psychology, Harvard University: Francesca Williams (Medical student, NYU Medical School)
- 1996 Thesis Advisory Committee Member, Doctoral Thesis, Harvard Program in Neuroscience: Karrin Sorra, PhD (Pfizer Pharmaceuticals)
- 1997 Thesis Advisor, Undergraduate Honors Thesis, Neuroscience, Harvard University: Anne Liu (Medical student, UCLA Medical School)
- 1997 Thesis Advisor, Undergraduate Honors Thesis, Neuroscience, Harvard University: Elijah Owens (Medical Student, University of Chicago)
- 1997-1999 Thesis Advisor, Undergraduate Honors Thesis, Neuroscience, Harvard University: Joelle Simpson (Medical Student, NYU Medical School)
- 2000-2001 Thesis Committee Member, Lianna Orlando, Division of Medical Sciences Harvard Medical School (Ph.D., Postdoctoral Fellow, MGH)
- 2000-2002 Supervisor, Research Student, Jocelyn Lippman  
(Ph.D. candidate, Neuroscience Program, Brown University)

---

2000-2005	Thesis Committee Member, Brian Whalen, Division of Medical Sciences, Harvard Medical School (Graduate Student, Harvard Medical School)
2004-	Independent Study Advisor, Department of Chemistry, Harvard University: Alisa Kahn (Undergraduate 2005, Harvard University)
2003-2005	Undergraduate Research Advisor: Rachel Levada (Graduate Student, Cornell Weill Medical College)
2005-2007	Undergraduate Research Advisor: Paven Aujla (Medical Student, Albert Einstein Medical College)
2004-2005	Rotation Advisor, Ali Shoeb, MIT (Graduate Student, HST/MIT)
2005-2006	Thesis Advisor, Adam Numis, MIT (Medical Student, HST/MIT)
2006-2007	Thesis Advisor, Erin Straw, Harvard University (Medical Student, Columbia University)
2006-2008	Thesis Advisor, Benjamin Lee, Harvard University (Medical Student, Harvard Medical School)
2006-2008	Thesis Advisor, Victor Lan, Harvard University (Medical Student, Albert Einstein Medical College)
2007-2008	Rotation Advisor, Showming Kwok, MIT (Graduate Student MIT)
2007-2009	Undergraduate Research Supervisor: Erin Fitzgerald (Medical Student, Albany Medical School)
2007-2009	Undergraduate Research Supervisor: Griffin Boll (Medical Student, University of Vermont Medical School)
2007-2010	Undergraduate Research Supervisor: Annelise Joseph (Graduate Student, Neuroscience, Brandeis University)
2010-2012	Thesis Advisor, Melody Hu, Harvard University
2010-2011	Medical Student Research Fellowship: Matthew DeSalvo (Medical Student, Harvard Medical School)
2011	Thesis Committee: Mark Bell Neuroscience graduate program Brown University

### **University of Pennsylvania/ Perelman School of Medicine**

2014	Rotation advisor, Blake Kimmey Neuroscience Graduate Group, Perelman School of Medicine
2014	Rotation advisor, Kate Folweiler Neuroscience Graduate Group, Perelman School of Medicine
2014	Rotation advisor, Annelise Gruenwald, Neuroscience Graduate Group, Perelman School of Medicine
2014-	Thesis Advisor, Madhu Yennewar, Pharmacology Graduate Program, University of Pennsylvania
2015 -	Thesis Advisor, Yeri Song, Neuroscience Graduate Group, Perelman School of Medicine
2014-2016	Undergraduate Thesis Advisor, Luke Massaro, University of Pennsylvania
2015-2016	Thesis Committee Member, Eva Klinman, Neuroscience Graduate Group, Perelman School of Medicine
2015-	Thesis Committee Member, Julie Kahn Neuroscience Graduate Group, Perelman School of Medicine
2015-2017	Undergraduate Thesis Advisor, Evan Honig, University of Pennsylvania

## **2. Regional, national, or international contributions**

**a. Invited presentations**

**Regional**

**1993**

Symposium

“Excitatory amino Acids and Epilepsy”

Epilepsy Challenge Symposium, Boston, MA; 5/93

**1993**

Neurology Grand Rounds

“Age-Dependent Effects of Cerebral Hypoxia/Ischemia”

Harvard Longwood Neurology Residency Training Program, Brigham and Women’s Hospital, Boston, MA, 9/93

**1994**

Symposium

“Epileptogenic Effects of Hypoxia”

Division of Neurology Research, Children's Hospital, Boston, MA, 5/94

**1996**

Seminar

“Epileptogenic Effect of Perinatal Hypoxia”

Beth Israel/Harvard Medical School Seminars in Neurobiology, Boston, MA, 2/96

**1996**

Lecture

“Seizures in the Developing Brain”

Department of Neurology, Tufts University Medical School, New England Medical Center, Boston, MA, 3/96

**1996**

Keynote Speaker

Symposium on Women in Science

Smith College, Northampton, MA, 3/30/96

**1996**

Lecture

“Redox Modulation of the NMDA Receptor”

Occlusive Cerebrovascular Disease Workshop, Yale School of Medicine, New Haven, CT, 5/18/96

**1996**

Lecture

“Redox Modulation of the NMDA Receptor”

Occlusive Cerebrovascular Disease Workshop, Yale School of Medicine, 5/18/96

**1996**

Lecture

“Stroke”

Bar Harbor Medical Symposium, Bar Harbor, ME, 7/15/96

**1997**

Seminar

“Redox Modulation of the NMDA Receptor in Stroke and Epilepsy”

Beth Israel/Harvard Medical School Seminars in Neurobiology, Boston, MA, 2/97

**1997**

Neurology Grand Rounds

“Modeling Neonatal Epilepsy: The Interaction Between Brain Development and Epilepsy”

Harvard Longwood Neurology Residency Training Program, Brigham and Women’s Hospital,  
Boston, MA, 5/97

**1997**

Merritt-Putnam Symposium Speaker

“Brain Development and Seizures”

American Epilepsy Society Annual Meeting, Boston, MA, 12/97

**1997**

Investigator’s Workshop Chairperson and Speaker

“Early Onset Epilepsy”

American Epilepsy Society Annual Meeting, Boston, MA 12/97

**1998**

Neurology Grand Rounds

“Maturation Alterations in Glutamate Receptor Expression”

University of Rochester, 6/98

**1999**

Seminar

“The Role of AMPA Receptors in Epileptogenesis in the Immature Brain”

Boston College Department of Biology Seminar Series, Boston, MA, 4/99

**1999**

Neurology Grand Rounds

“The Role of Glutamate Receptor Maturation in Perinatal Brain Injury”

Department of Neurology, Massachusetts General Hospital, Boston, MA, 5/99

**2000**

Grand Rounds

“The Role of Glutamate Receptor Maturation in Perinatal Brain Injury”

Harvard Longwood Neurosurgical Program, Brigham and Women’s Hospital, Boston, MA, 1/00

**2000**

Neurology Grand Rounds

“Glutamate Receptor Maturation and Perinatal Brain Injury”

Harvard Longwood Neurology Grand Rounds, Boston, MA, 5/00

**2001**

Neuroscience Seminar Series

“Developmental Regulation of Glutamate Receptor Expression”

University of Pennsylvania/Children’s Hospital, 6/01

**2002**

Seminar

“Interaction Between Brain Development, Excitotoxicity, and Epilepsy”

Neuroscience Program Seminar, Tufts University Medical School, Boston, MA, 1/02

**2002**

Grand Rounds

“Role of Glutamate Receptor Maturation in Perinatal Brain Injury”

Department of Neurology, Children’s Hospital, Boston, MA, 2/02

**2004**

Tuberous Sclerosis Alliance Workshop, Speaker

“Glutamate Receptor Abnormalities in Tuberous Sclerosis”

New York, NY, 11/04

**2005**

Neurology Grand Rounds, Longwood Medical Area and Children's Hospital Boston

“Role of Glutamate Receptor Maturation in Perinatal Brain Injury and Seizures:Translational Implications” Boston, MA, 1/05.

**2005**

Congress of Neurological Surgeons, Speaker

“Cellular and Molecular Mechanisms of Epileptogenesis in Tuberous Sclerosis” Boston, MA, 10/05

**2006**

Newborn Medicine Grand Rounds, Children's Hospital, Boston and Partners Neonatology Program, Speaker

“Neonatal Seizures: Is the Bench Finally Coming to the Bedside?” Boston, MA, 1/06

**2006**

Tuberous Sclerosis/LAM Conference. Harvard Medical Institute, Speaker

“Abnormalities in Glutamate Receptor Expression in Human Tuberous Sclerosis”

Boston, MA, 2/06

**2006**

“Neonatal Neurology: Bench to Bedside” Speaker, Volpe Symposium, Children's Hospital, Boston, MA, 5/06

**2006**

“Mechanisms of Learning and Memory in the Adolescent Brain”

Adolescent medicine Conference, Baystate Medical Center, Boxborough, MA 10/06

**2007**

“Understanding the Teenage Brain”

Adolescent Psychiatry, Children’s Hospital 3/07

**2007**

“Epilepsy: A Primer from Basic Mechanisms to Clinical Experience”

Brandeis University, Waltham, MA 3/07

**2008**

“The Paradox of the Teenage Brain”

Adolescent Psychiatry, McLean Hospital, Belmont, MA 2/08

**2008**

“What Neuroscience Tells us about the Teenage Brain”

Learning and Brain Conference  
Massachusetts Institute of Technology, 4/08

**2008**

“The use of bumetanide in the treatment of neonatal seizures: Bench to Bedside translation”  
Newborn Medicine Grand Rounds  
Children’s Hospital and Brigham and Women’s Hospital, Boston, MA 9/08

**2009**

“Learning and Memory in Teenage Brain”  
Adolescent Psychiatry, McLean Hospital, Belmont, MA 2/09

**2009**

“Basic mechanisms underlying the paradox of the teenage brain”  
Clinical Brain Science Collaborative Seminar  
Children’s Hospital Boston, Boston, MA 4/09

**2009**

“What Neuroscience Tells us about the Teenage Brain”  
Learning and Brain Conference  
Massachusetts Institute of Technology, 11/09

**2010**

“Teenage Brain: What is myth and what is fact?”  
Adolescent Psychiatry Seminar  
McLean Hospital, Belmont, MA 4/10

**2010**

“Epilepsy Spectrum Disorder”  
Denny Brown Memorial Lecture  
Boston Society for Neurology and Psychiatry, 5/10

**2010**

“The Paradoxical State of the Adolescent Brain”  
Combined Anesthesia and General Surgery Grand Rounds  
Children’s Hospital, Boston, MA, 9/10

**2010**

“Interaction between Epilepsy and Autism”  
Epilepsy Research Seminar  
Children’s Hospital Boston, 12/10

**2011**

“Epilepsy beyond the seizures”  
Children’s Hospital Neurology Grand Rounds  
Harvard Institute of Medicine, 10/11

**2011**

“Early phase clinical trials”  
Panelist, Manton Center for Rare Diseases Symposium  
Children’s Hospital Boston, 10/11

**2017**

“The Adolescent Brain”  
Roxbury Medical Improvement Society  
Boston, MA 4/17

**University of Pennsylvania/Perelman School of Medicine**

**2013**

“The Teen Brain Explained”  
The Sprague Lecture  
Mahoney Institute for Neurosciences Annual Symposium, 4/13

**2013**

“The Paradox of the Teen Brain”  
Neurology Grand Rounds  
Children’s Hospital of Pennsylvania, PA 10/13

**2013**

“Advancements in Human Tissue Studies in Epilepsy”  
Neurosurgery Grand Rounds  
Perelman School of Medicine, Univ of Pennsylvania, PA 10/13

**2013**

"Exploring the Shared Neurobiology of Early Life Epilepsy and Autism"  
IDDRC Symposium  
University of Pennsylvania, Perelman School of Medicine, Philadelphia PA 9/13

**2013**

“Altered synaptic plasticity and signaling as a consequence of early life epilepsy”  
Mahoney Institute of Neuroscience Seminar Series  
University of Pennsylvania, PA, 11/13

**2013**

“Explaining the Teenage Brain”  
CHOP Neuroscience Grand Rounds  
Children’s Hospital of Philadelphia, PA, 11/13

**2014**

“Mechanisms of Neonatal Seizures”  
Neonatology Seminar Series  
Children’s Hospital of Philadelphia, PA, 1/14

**2014**

“The Teen Brain: A Neuroscientist’s Survival Guide”  
Pediatric Grand Rounds  
Children’s Hospital of Philadelphia, PA, 2/14

**2014**

“Innovation and Technology in Translational Neuroscience”  
CTSA Undergraduate Symposium  
University of Pennsylvania, Philadelphia, PA, 4/14



**2014**

“Epilepsy and Cognitive Consequences: Shared Mechanisms and Treatment Targets?”  
James Stinnett Honorary Lecture  
Psychiatry Grand Rounds  
University of Pennsylvania, Philadelphia, PA, 5/14

**2014**

“The New Neurology”  
Keynote Speaker – Commencement  
Temple University, Philadelphia, PA 6/14

**2015**

The Teenage Brain Explained  
Philadelphia Neurological Society  
College of Physicians, Philadelphia, PA 9/15

**2016**

Adolescent Neurobiology  
15<sup>th</sup> Annual Disability Symposium  
University of Pennsylvania, PA 4/16

**2017**

Neurobiology of Adolescence  
CHAS Winter Summit  
University of Pennsylvania, PA 1/17

**2017**

Neuroscience You Can Use  
Executive Vice Presidents Speaker Series  
University of Pennsylvania, PA 2/17

**National**

**1990**

Grand Rounds  
“Perinatal Seizure Mechanisms”  
University of Rochester Medical Center, Rochester, NY, 7/90

**1993**

Neurosurgery Grand Rounds  
“The Epileptogenic Effect of Perinatal Hypoxia”  
Dept. of Neurosurgery, University of Washington, Seattle, WA, 10/93

**1995**

Session Chairperson and Invited Lecture  
“Redox Reagents and the CNS”  
Gordon Conference, Ventura, CA, 2/95

**1998**

Symposium Speaker  
“Role of Glutamate Receptor Maturation in Perinatal Brain Injury”  
The Glutamate Cascade Symposium, NIH, Bethesda, MD, 5/98

**1999**

Symposium Speaker

“Glutamate Receptor in the Epileptogenesis and White Matter Injury in the Developing Brain”  
American Epilepsy Society Annual Meeting Symposium on Neuroprotection, Miami, FL, 12/99

**2000**

Panelist

“Curing Epilepsy: Focus on the Future”  
Cure for Epilepsy Conference, NIH, 3/00

**2000**

Symposium Speaker

“The Relationship Between Encephalopathy and Abnormal Neuronal Activity”  
Pediatric Epilepsy Research Symposium 2000, Seattle, WA, 9/00

**2000**

Speaker

“The Role of the AMPA Receptor in Perinatal Brain Injury”  
Epilepsy Educator’s Conference, New Orleans, LA, 11/00

**2001**

Chairperson and Speaker

“Evolving Direction in the Management of Epilepsy”  
National Institutes of Neurological Diseases, Bethesda, MD, 2/01

**2001**

Snowbird Symposium

“Glutamate Receptors and their Role in Hypoxic/Ischemic Brain Injury”  
Graduate Program in Neuroscience, University of Utah, 11/01

**2002**

Speaker

“Mechanisms of Ischemic Brain Injury in the Developing Brain”  
Epilepsy Educators Conference, Miami, FL, 1/02

**2002**

Grand Rounds

“Role of Glutamate Receptor Maturation in Perinatal Brain Injury”  
Baylor College of Medicine, Department of Neurology, Houston, TX, 3/02

**2002**

Speaker

“Gene Array Analysis in Epilepsy: Application to animal models”  
National Institutes of Health/National Institute of Neurologic Disorders and Stroke, Bethesda, MD,  
10/02

**2003**

Speaker

“Models of Perinatal Brain Injury”  
Clinical Trials in Neuroprotection Conference, Key Biscayne, FL, 1/03

**2003**

Speaker  
“Brain Injury in the Developing Brain”  
Epilepsy Educators Conference, Miami, FL, 1/03

**2003**

Neurobiology of Disease Workshop, Speaker  
“Neonatal Seizures and Neuroprotection”  
Society for Neuroscience 33<sup>rd</sup> Annual Meeting, New Orleans, LA, 11/03

**2003**

Symposium American Epilepsy Society, Speaker  
“Post-stroke Epilepsy: Neonatal ischemia and Seizures”  
American Epilepsy Annual Meeting, Boston, MA, 12/03

**2003**

Investigator’s Workshop, Speaker and Moderator  
“Post-translational Modifications in Epileptogenesis”  
American Epilepsy Annual Meeting, Boston, MA, 12/03

**2003**

The Lennox Lecture, American Epilepsy Society, Speaker  
“Antiepileptogenesis and Neuroprotection: Where are We Going?”  
American Epilepsy Annual Meeting, Boston, MA, 12/03

**2004**

Epilepsy Educators’ Conference, Speaker  
“Role of Glutamate receptors in Perinatal Brain Injury”  
Miami FL, 1/04

**2004**

Hot Topics in Epilepsy Conference, Speaker  
“The Role of Calcium Permeable AMPA Receptors in Perinatal Seizures” University of California,  
Irvine, 3/04

**2004**

Neurology Grand Rounds, Speaker  
“Maturational factors involved in perinatal brain injury”  
Northwestern University Medical School, Chicago, IL, 4/04

**2004**

Neurology Grand Rounds, Speaker  
“Role of glutamate receptor development in perinatal brain injury”  
University of Texas/Southwestern Medical Center, San Antonio, TX, 5/04

**2004**

United Cerebral Palsy Workshop, Speaker  
“Mechanisms of white matter injury in a model of periventricular leukomalacia”  
Asilomar Conference Center, Monterey, CA, 6/04

**2004**

American Epilepsy Society, Children’s Hour, Speaker

“Mechanisms of neonatal seizures”  
American Epilepsy Society Annual Meeting, New Orleans, LA, 12/04.

**2005**

Antiepileptic Drug Trials VIII Conference, (University of Pennsylvania) Speaker and Panelist  
“Models of epileptogenesis available for drug screening: Pediatrics”  
Key Biscayne, FL 3/05

**2005**

“Age-specific mechanisms of injury in the developing brain”; Speaker, Research Seminar  
University of Alabama, Birmingham, AL 4/05

**2005**

Tuberous Sclerosis Alliance International Research Symposium, Speaker  
Epileptogenesis, Synaptic Plasticity, and Tuberous Sclerosis”  
Cincinnati, OH, 4/05

**2005**

American Epilepsy Society, Special Interest Group on Tuberous Sclerosis; Speaker  
“Abnormalities in Glutamate Receptors in Human Tuberous Sclerosis”  
AES Annual Meeting, Washington, DC, 12/05

**2005**

American Epilepsy Society, Special Interest Group on Translational Neuroscience; Speaker  
“New Targets for Antiepileptogenesis: Thinking outside the Box”  
AES Annual Meeting, Washington, DC, 12/05

**2006**

Medical College of Ohio Neurology Grand Rounds, Speaker  
“Glutamate receptors and their role in perinatal brain injury” Toledo, OH, 1/06

**2006**

University of Colorado Neurology Grand Rounds, Speaker  
“Age-specific mechanisms of neonatal seizures and perinatal brain injury”  
Denver, CO, 2/06

**2006**

University of San Francisco, Graduate Program in Neurosciences, Research Seminar, Speaker  
“Maturation factors contributing to perinatal brain injury and seizures”  
San Francisco, CA, 3/06

**2006**

Emory University, Neurology Department. Seminar Speaker  
“Developmental regulation of neurotransmission in the immature brain: Implications for neonatal seizure therapy”  
Atlanta, GA, 4/06

**2006**

University of California, Irvine, Neuroscience Program, Seminar Speaker  
“Impact of glutamate receptor development on the pathogenesis of perinatal brain injury”, Irvine, CA  
5/06

**2006**

Hershey Medical Center Conference on Cerebral Palsy, Speaker  
“The Role of Excitotoxicity in Periventricular Leukomalacia”, Princeton, NJ, 5/06

**2006**

Neurology Grand Rounds  
“Neonatal Neurology: Is the Bench Finally Coming to the Bedside?” Speaker, Grand Round,  
Massachusetts General Hospital, Boston, MA 6/06

**2006**

Children’s Conference  
“Novel Mechanisms of Perinatal Brain Injury: Therapeutic Implications”  
Speaker, Children's Hospital, Seattle, University of Washington, Seattle, WA 7/06

**2006**

Epilepsy Conference  
“Epileptogenesis in the Developing Brain”  
Speaker, Harborview Hospital, Seattle, University of Washington, Seattle, WA 7/06

**2006**

Gordon Research Conference on Epilepsy  
“Developmental Factors Contributing to Epileptogenesis”  
Speaker, Colby College, Waterville, ME 8/06

**2006**

Newborn Brain Symposium  
“Novel approaches in neonatal seizures and therapy”  
Speaker, Washington University, St. Louis, MO 9/06

**2006**

Child Neurology Society 2006 Annual Meeting Symposium  
“Neonatal Neurology: Is the Bench Finally Coming to the Bedside?”  
Pittsburgh, PA, 10/06

**2006**

American Epilepsy Society 2006 Annual Meeting Investigator Workshop  
“Alterations in Neurotransmission in Tuberous Sclerosis”  
San Diego, CA, 12/06

**2007**

Dartmouth Medical School, Neuroscience Day Speaker  
“The Role of Glutamate Receptor Maturation in Perinatal Brain Injury”  
Hanover, NH, 2/07

**2007**

Curing Epilepsy II Conference  
“Mechanisms of Epileptogenesis: Translating Basic Mechanisms into Cures”  
NIH, Bethesda, MD, 3/07

**2007**

Neonatal Seizure Workshop  
“Pathophysiology of Seizures in the Neonatal Brain”

“Antiepileptic therapies: Topiramate”  
NIH, Bethesda, MD, 6/07

**2007**

International Tuberous Sclerosis Alliance Meeting  
“Abnormal Neuronal Function in TSC”  
Annapolis, MD, 9/07

**2007**

American Neurological Association  
“The Hyperexcitable Brain: Mechanisms of Epileptogenesis in the Immature Brain”  
Washington, DC, 10/07

**2007**

American Epilepsy Society Presidential Symposium  
“Translational Therapeutics for Antiepileptogenesis”  
Philadelphia, PA 12/07

**2007**

American Epilepsy Society Merritt Putnam Symposium  
“Post-traumatic Epilepsy: A Case for Treatable Epileptogenesis”  
Symposium Chair  
Philadelphia, PA 12/07

**2008**

Museum of Science Life Science Lecture Series  
“A User’s Guide to the Teenage Brain”  
Boston, MA 4/08

**2008**

Massachusetts Institute of Technology Learning and the Brain Conference  
“The Paradox of Learning in the Teenage Brain”  
Boston, MA 4/08

**2008**

Swebalium Lecturer, Yale University Medical Center, Department of Neurosurgery  
“Epileptogenesis in cortical dysplasias: A link to development”  
New Haven, CT 5/08

**2008**

Gordon Research Conference on Epilepsy  
“Post-translational mechanisms in epileptogenesis in the developing brain”  
Speaker, Colby College, Waterville, ME 8/08

**2008**

Newborn Brain Symposium  
“Neurotransmitters in the developing brain and their role in disease”  
Speaker, Washington University, St. Louis, MO 9/08

**2008**

Newborn Brain Symposium  
“Neonatal seizures and therapy”

Speaker, Washington University, St. Louis, MO 9/08

**2008**

NIH Director's Pioneer Symposium

"Understanding the cognitive consequences of early life epilepsy"

Speaker, NIH, Bethesda, MD, 9/08

**2008**

Intramural Program, NINDS

"Mechanisms of Epileptogenesis: Understanding the Epilepsy Spectrum Disorder"

Speaker, NINDS, Bethesda, 10/08

**2008**

Child Neurology Society NINDS Neurobiology of Disease Symposium

"Excitotoxic Mechanisms of White Matter Injury in the Premature Brain"

Speaker, Santa Clara, CA 11/08

**2008**

Child Neurology Society Symposium

"Mechanisms of Neonatal Seizures and Neuroprotection"

Speaker, Santa Clara, CA 11/08

**2008**

Kellaway Lecture

"Mechanisms of Epileptogenesis: Understanding the Epilepsy Spectrum Disorder"

Baylor College of Medicine, Houston, TX 11/08

**2008**

National EpiFellows Conference

"Mechanisms of Neonatal Seizures"

Seattle, WA 12/08

**2008**

American Epilepsy Society Merritt Putnam Symposium

"Cortical Dysplasias"

Symposium Chair

Seattle, WA 12/08

**2008**

American Epilepsy Society Investigator Workshop

"Animal Models of Epilepsy"

Seattle, WA 12/08

**2008**

American Epilepsy Society Basic Research Awards Lecture

"Cognitive Comorbidities of Epilepsy"

Seattle, WA 12/08

**2009**

Winter Conference for Brain Research Symposium  
“Clinical translation: a role for NKCC1 transporter inhibitors in neonatal seizures”  
Copper Mountain, CO 1/09

**2009**

Jasper’s Basic Mechanisms of Epilepsy Workshop  
“Post-translational mechanisms of epileptogenesis”  
Yosemite Valley, CA 3/09

**2009**

Wesleyan University Neuroscience Departmental Seminar  
“Age-Related Mechanisms of Perinatal Brain Injury”  
Middletown, CT 4/09

**2009**

Grass Lecturer, Society for Neuroscience CT Chapter  
“Epileptogenesis and Dysplasticity in the Developing Brain”  
Middletown, CT 4/09

**2009**

Lothman Lecture University of Virginia,  
“Synaptic Dysplasticity: Understanding the Cognitive Consequences of Early Life Epilepsy”  
Charlottesville, VA 5/09

**2009**

American Neurological Association Junior Faculty Development Workshop  
“The Do’s and Don’ts of Grant Writing”  
Baltimore, MD 10/09

**2009**

Massachusetts Institute of Technology Learning and the Brain Conference  
“The Paradox of Learning in the Teenage Brain”  
Boston, MA 11/09

**2009**

American Epilepsy Society Merritt Putnam Symposium  
“Epilepsy Spectrum Disorder: Beyond the Seizures”  
Symposium Chair  
Boston, MA 12/09

**2009**

American Epilepsy Society Merritt Putnam Symposium, Lecturer  
“Diagnosis and Management of the Non-Ictal Components of Epilepsy”  
Boston, MA 12/09

**2010**

Winter Conference for Brain Research  
Novel Therapies for Epilepsy: Translating from Basic Neurobiology  
Breckenridge, CO 1/10



**2010**

University of Pennsylvania  
Department of Neurology Grand Rounds  
“Epileptogenesis in the Immature Brain: Future Intervention Points”  
Philadelphia, PA 4/1/10

**2010**

National Institutes of Health, NINDS  
NINDS Workshop on Antiepileptogenesis  
“Translational strategies for antiepileptogenesis research”  
Bethesda, MD, 8/10

**2010**

American Neurological Association  
Chair, Neurobiology of Disease Symposium  
“Understanding the Connectome”  
San Francisco, CA, 9/10

**2010**

TEDMED Conference  
“What we can learn from children with epilepsy”  
San Diego, CA 10/10

**2010**

Society for Neuroscience Annual Meeting  
“How to write an NIH Grant”  
Professional Development Workshop, Chair and Speaker, 11/10

**2010**

“Early Detection of Epileptogenesis”  
Speaker, Investigators Workshop, American Epilepsy Society Annual Meeting, San Antonio, TX,  
12/10

**2010**

“Interaction between Epilepsy and Autism”  
ILAE/Autism Speaks Workshop  
New York, NY, 12/10

**2011**

“Advances in Epilepsy”  
Institute of Medicine, Committee for IOM Report on Epilepsy  
Washington, DC, 1/11

**2011**

“Epilepsy Spectrum Disorder – Beyond the Seizures”  
Roxbury Society for Medical Education, Boston, MA 2/11

**2011**

“Challenges in the development of antiepileptic therapies in the pediatric population”  
Antiepileptogenic Drug Workshop XI  
Miami, FL, 4/11

**2011**

“The Neurobiological Consequences of War”  
Speaker and Chairperson  
One Mind for Research Symposium  
Boston, MA, 5/11

**2011**

“The role of neurotransmitters in brain development”  
Newborn Brain Symposium  
Washington University Medical School  
St. Louis, MO, 9/11

**2011**

“Neonatal seizures: treatment”  
Newborn Brain Symposium  
Washington University Medical School  
St. Louis, MO, 9/11

**2011**

“Careers in Neurology: Role of the Training Grant”  
NINDS Career Symposium  
Congress for Neurological Surgeons  
Washington, DC 9/11

**2012**

“Accelerating Translational Epilepsy Research”  
Epilepsy Pipeline Conference  
San Francisco, CA 2/12

**2012**

“Cognitive consequences of epilepsy”  
Neuroscience Seminar Series  
Brown University, RI 2/12

**2012**

“Neurobiology of Epilepsy”  
Neuroscience Seminar Series  
Vanderbilt University, TN 4/12

**2012**

“Institute of Medicine Report on Epilepsy: Implications for Practice”  
American Academy of Neurology Annual Meeting Special Symposium  
New Orleans, LA 4/12

**2012**

“The interaction between Epilepsy and Autism”  
Hot Topics Symposium, American Academy of Neurology Annual Meeting  
New Orleans, LA 4/12

**2012**

“Epilepsy and Autism”  
NIH-NINDS Workshop on Epilepsy

Bethesda, MD 5/12

**2012**

Epilepsy Update  
NIH iCARE symposium  
Bethesda, MD 6/12

**2012**

“Epilepsy Spectrum Disorder: Beyond Seizures”  
The Philadelphia Neurological Society  
Philadelphia, PA, 11/12

**2012**

Presidential Symposium, Chairperson and Speaker  
“The Institute of Medicine Report on Epilepsy”  
American Epilepsy Society 2012 Annual Meeting  
San Diego, CA 12/12

**2013**

“The New Neurology”  
Neurology Grand Rounds  
University of Pennsylvania  
Philadelphia, PA 1/13

**2013**

New targets in the treatment of neonatal seizures  
Educational symposium  
American Academy of Neurology 2013 Annual Meeting  
San Diego, CA, 3/13

**2013**

Cognitive Comorbidities of Epilepsy: Epilepsy Spectrum Disorder  
Educational symposium  
American Academy of Neurology 2013 Annual Meeting  
San Diego, CA, 3/13

**2013**

Cognitive Comorbidities of Epilepsy, Chairperson  
Curing Epilepsy Conference 2013  
National Institutes of Health, NINDS  
Bethesda, MD, 4/13

**2013**

“Cognitive consequences of Epilepsy”  
2013 GW Institute for Neuroscience Symposium  
George Washington University, Washington, DC, 5/13

**2013**

“The Teen Brain Explained”  
Sprague Lecture, Mahoney Institute for Neurosciences Annual Symposium  
University of Pennsylvania  
Philadelphia, PA, 4/13

**2013**

Epilepsy: Beyond the Seizures  
George Washington University Neuroscience Symposium  
Washington, DC, 4/13

**2013**

Translational advances in Epilepsy Research  
Antiepileptic Drug and Device Trials XII Symposium  
Epilepsy Therapy Development Project, Turnberry Isle, FL, 5/13

**2013**

Translational Medicine: How to access your department chair  
Lecture, Harvard Medical School Intensive Training in Translational Medicine  
Boston, MA, 6/13

**2013**

“New Frontiers in Neuroscience: Impact of Innovation and Integration”  
Inaugural Symposium, Institute of Medical Engineering and Science (IMES)  
Massachusetts Institute of Technology, Cambridge, MA 9/13

**2013**

“Epilepsy Beyond the Seizures: Shared Neurobiology of Epilepsy and its Cognitive  
Comorbidities”  
Neurology Grand Rounds  
Rutgers Medical School, New Brunswick, NJ, 10/13

**2013**

“How to Write a Grant”  
NINDS/ANA Career Development Symposium  
American Neurological Association Annual Meeting, New Orleans, LA, 10/13

**2013**

Chairperson, “The Impact of Genomics on Epilepsy”  
Neurobiology Symposium  
American Neurological Association Annual Meeting, New Orleans, LA, 10/13

**2013**

“Staging the Epilepsies”  
Hot Topic Symposium, American Epilepsy Society Annual Meeting  
Washington, DC, 12/13

**2014**

“Building Pathways Conference III”  
Third Research Symposium  
Westwood, CA 2/14

**2014**

“EpiBios Cellular and Molecular”  
Biomarkers Workshop  
UCLA, Los Angeles, CA 2/14

**2014**

“The shared biology of epilepsy and its comorbidities”  
Neurology Grand Rounds  
Yale University School of Medicine, New Haven, CT, 3/14

**2014**

“Epilepsy and Cognitive Consequences: Shared mechanisms and treatment targets?”  
Neurology/Neurosurgery/Neuroscience Grand Rounds  
Temple University, Philadelphia, PA 4/14

**2014**

Research Career Development Symposium: How to Be Successful in Academic Neuroscience –  
Mentor and Group Leader  
Educational symposium  
American Academy of Neurology 2014 Annual Meeting  
Philadelphia, PA, 4/14

**2014**

“What Are They Thinking? How the Brain Develops from Infancy to Adolescence”  
Speaker  
Brain Fair – Philadelphia Science Festival  
Franklin Institute  
Philadelphia, PA, 4/14

**2014**

Recent Advances in Translational Research in Autism  
Speaker  
American Academy of Neurology 2014 Annual Meeting  
Philadelphia, PA, 4/14

**2014**

Neurology's Origin's in Philadelphia  
Co-Director for course  
American Academy of Neurology 2014 Annual Meeting  
Philadelphia, PA, 4/14

**2014**

Evidence for dysregulation of synaptic plasticity in early life epilepsy  
Speaker, Gordon Research Conference on Epilepsy  
Mt. Snow, Vermont, 8/14

**2014**

Working in teams: Implications for Translational Medicine  
Speaker, Harvard Medical School Intensive Training in Translational Medicine  
Cambridge, MA, 10/14

**2014**

Translational advances for treatment of neonatal seizures  
Speaker, Cell Symposium  
Washington, DC, 11/14

**2014**

The Teenage Brain: A Paradox in Transition  
Lecturer, Neurology Grand Rounds, Department of Neurology, University of Pennsylvania  
Philadelphia, PA, 11/14

**2014**

Epilepsy Spectrum Disorder: Implications for Patient Care, Research and Education  
Hoyer Lecture  
American Epilepsy Society Annual Meeting, Seattle, WA 12/14

**2015**

Mechanisms of epileptogenesis and epilepsy-related cognitive comorbidities  
Grand Rounds Speaker  
Neurology Department, University of Colorado, Denver, CO 2/15

**2015**

Shared Neurobiology of Epileptogenesis and the Cognitive Comorbidities of Epilepsy  
Neurology Grand Rounds Speaker  
Thomas Jefferson University Medical School, Philadelphia, PA 2/15

**2015**

Epilepsy Spectrum Disorder: Shared Neurobiology of Epileptogenesis and  
cognitive comorbidities  
Psychiatry Grand Rounds Speaker  
Rutgers-Robert Wood Johnson Medical School, Piscataway, NJ 4/15

**2015**

Women in Leadership Program  
American Academy of Neurology 2015 Annual Meeting, Washington, DC, 4/15

**2015**

Developmental Effects of Nicotine and Implications for Emerging Tobacco Products Meeting; Center  
for Disease Control and Prevention  
Expert Meeting  
Speaker, 5/15

**2015**

The Paradox of the Teenage Brain: How neurobiology reveals a window of  
opportunity and vulnerability"  
Conference Speaker  
Columbia University, Learning & the Brain educational conference on "Using Cognitive Science for  
21st Century Schools", New York, NY 5/15

**2015**

"Explaining the Ever-Unpredictable Teenage Brain", Focus Lunchtime Seminar  
Keynote Speaker  
University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA 5/15

**2015**

Neurobiology of Epileptogenesis  
Neuroscience Retreat Keynote Speaker  
University of Michigan, MI, 6/15

**2015**

Shared Neurobiology of Epileptogenesis and the Cognitive Comorbidities of Epilepsy  
Neurology Grand Rounds Speaker  
Columbia University, The Neurological Institute of New York, New York, NY 6/15

**2015**

Informed consent for IRB in adolescence: How developed is the brain  
Examining Mature Minor Consent for HIV Prevention Research Workshop (NIAID, NIMH, NICHD)  
NIH, 6/15

**2015**

Neurobiology of Epileptogenesis and the Cognitive Comorbidities of Epilepsy  
Neurology Grand Rounds Speaker  
George Washington University, Washington, DC 9/15

**2015**

“Epilepsy as a Spectrum Disorder”  
Smith College Neuroscience Seminar  
Smith College, Northampton, MA 9/15

**2015**

“The Biology of the Adolescent Brain”  
Smith College Science Seminar  
Smith College, Northampton, MA 9/15

**2015**

“Chairing a Neurology Department”  
ANA Career Development Course  
ANA 2015 Meeting, Chicago, IL 9/15

**2015**

“Meet the Expert”  
Society for Neuroscience Annual Meeting, Chicago, IL 10/15

**2015**

“Cognitive Consequences of Epilepsy”  
Grand Rounds Speaker  
University of Pittsburgh, Pittsburgh, PA, 11/15

**2015**

“Addressing Ethical Challenges for Enrolling At-Risk Adolescents in Research”  
Speaker  
Public Responsibility in Medicine and Research 2015 Annual Meeting, Boston, MA 11/15

**2015**

The Adolescent Brain”  
UNICEF Thought Leaders Series, Speaker  
UNICEF, NY, NY 11/15

**2016**

Raising Responsible, Successful and Fulfilled Children  
Guest Speaker

Mini University, Young Presidents Organization, Houston, TX 1/16

**2016**

The Teenage Brain: Planning for Success in High School, College and Beyond

Speaker

Virginia Festival of the Book

Northside Library, Charlottesville, VA 3/16

**2016**

The Teen Brain

Staff Lecture

Society for Neuroscience, Washington, DC 3/16

**2016**

Epilepsy Spectrum Disorder: Shared Synaptic Mechanisms for Epileptogenesis and Cognitive Comorbidities

Neurology Grand Rounds Lecture

Mayo Clinic, Rochester, MN 3/16

**2016**

Shared Synaptic Mechanisms for Epileptogenesis and Cognitive Comorbidities

Neurology Grand Rounds Lecture

University of Maryland, MD 4/16

**2016**

Neurobiology of Adolescence

Pediatric Grand Rounds

Nemours Children's Hospital, Temple University, Philadelphia, PA, 6/16

**2016**

The teenage brain in college

Presidential lecture

American College Health Association Annual Meeting, San Francisco, CA 6/16

**2016**

"Adolescent brain, learning and higher education"

2016 Aspen Symposium

Aspen Institute, Colorado 6/16

**2016**

Working in teams: Implications for Translational Medicine

Speaker, Harvard Medical School Intensive Training in Translational Medicine

Cambridge, MA, 9/16

**2016**

"Guiding Principles for Development of Neuroscience Service Lines"

Association of University Professors in Neurology Seminar speaker

American Neurological Association 2016 Annual Meeting, Baltimore, MD 10/16

**2016**

"Cognitive consequences of Epilepsy: Mechanisms"

Annual Philip Dodge Lecture



Washington University, St. Louis, MO 11/16

**2016**

“The Neurobiological basis for the unique strengths and weaknesses of the adolescent brain”  
Presidential Lecture  
Society for Neuroscience Annual Meeting, San Diego, CA 11/16

**2017**

Shared Neurobiology of Epileptogenesis and its Cognitive Comorbidities  
Speaker Grand Rounds  
Harvard Longwood Medical Area Grand Rounds, Boston, MA 2/17

**2017**

“The Neurobiological basis for the unique strengths and weaknesses of the adolescent brain”  
Seminar, Department of Neurobiology  
Harvard Medical School, Boston, MA 2/17

**2017**

Neuropathology of Cognitive Comorbidities of Epilepsy  
Grand Rounds Speaker, Department of Pathology  
University of Pennsylvania, PA 2/17

**2017**

“Neurobiology of Epileptogenesis”  
Kirshner Lecture  
Vanderbilt university, TN 3/17

**2017**

Update on Autism and its Comorbidities  
Seminar Speaker and Chairperson  
American Academy of Neurology Annual Meeting, Boston, MA 4/17

**2017**

“Shared Neurobiology of Epileptogenesis and its Comorbidities”  
Grand Rounds Speaker  
Stanford University, Palo Alto, CA 5/17

**International**

**1991**

Investigator Workshop  
“Neonatal Oxygen Deprivation and Seizures”  
International Epilepsy Congress, IXX Meeting, Rio de Janeiro, Brazil, 10/91

**1992**

Symposium

“Seizures in the Developing Brain”  
Eastern EEG Association Annual Meeting, Montreal, Canada, 2/92

**1994**

Lecture  
“Animal Models Relevant to Human Epilepsies”  
ILAE Conference, Portugal, 9/94

**1995**

Lecture  
“The Role of the NMDA Redox Site in Stroke and Epilepsy”  
ILAE Conference, Corsica, 7/95

**1995**

Workshop On Epilepsy (WONOE) Symposium  
“Animal Models of Epilepsy”  
International Epilepsy Congress, XXI Meeting, Sydney, Australia, 9/95

**1996**

Transgenic Models of Epilepsy Workshop, Lecture  
“Altered Gene Expression after Perinatal Hypoxia”  
International Epilepsy League, Venice, Italy, 10/1/96

**1997**

“Epileptogenic Effects of Perinatal Hypoxia”  
Brain Development and Childhood Epilepsy Conference, Strasbourg, France, 4/97

**1997**

WONOE Symposium  
“Perinatal Hypoxic Encephalopathy and Epilepsy”  
International Epilepsy Congress, Dublin, Ireland, 6/97

**1997**

Lecture  
“Seizure-related Brain Damage”  
Focus on Epilepsy Conference, Montreal, Canada, 8/97

**2001**

WONOE Symposium  
“Animal Models of Epilepsy: Modeling Neonatal Seizures”  
International Epilepsy Congress, XXII Meeting, Buenos Aires, Argentina, 5/01

**2001**

Scientific Symposium  
“Pathogenetic Mechanisms in Perinatal Brain Injury”  
International Epilepsy Congress, XXII Meeting, Buenos Aires, Argentina, 5/01

**2001**

Neurology Grand Rounds  
“Pathogenic Mechanisms in Perinatal Brain Injury”  
Hospital for Sick Children, Toronto, Canada, 6/01

**2002**

Grand Rounds  
“Future Therapeutic Implication for Perinatal Brain Injury”  
Montreal Children’s Hospital, McGill University, Montreal, Canada, 3/02

**2002**

Grand Rounds  
“Age-Specific Mechanisms of Perinatal Hypoxic/Ischemic Injury”  
Children’s Hospital, Laval University, Quebec City, Canada, 3/02

**2003**

WONOEP Symposium  
“Early Alterations in Neurotransmitter Receptors Function and Expression Following Early Life Seizures”  
International Epilepsy Congress, XXIII Meeting, Lisbon, Portugal, 10/03

**2004**

National Academies/IOM U.S. National Committee, International Brain Research Organization.  
Speaker, Instructional Course, The Neurobiology of Epilepsy  
“Neonatal Seizures and Neuroprotection”  
Rhodes University, Grahamstown, South Africa, 9/04.

**2005**

31<sup>st</sup> Annual Meeting of the Society for Neuropediatrics, Keynote Speaker  
“Developmental Factors in Hypoxic Perinatal Brain Injury and Seizures”  
Erlangen, Germany, 4/05

**2005**

WONOEP symposium  
“Factors Influencing Seizure Susceptibility in the Neonatal Human Brain”  
Paris, France, 8/05

**2006**

International Symposium on Convulsive and non-convulsive status epilepticus  
(CSE) in childhood  
“Epileptogenesis in the Developing Brain”  
London, England, 10/06

**2007**

Pediatric Academic Societies Symposium  
“Premature Brain Injury, Unique Patterns, Outcomes and Mechanisms”  
Toronto, Canada, 4/07

**2007**

La Ciutat International Symposium on Translational Neuroscience  
“Unique therapies for anti-epileptogenesis in the developing brain”  
Marseilles, France 9/07

**2009**

The Tizard Lecture, The Neonatal Society  
“Causes and Consequences of Neonatal Seizures”  
Durham, UK, 6/09

**2009**

Pediatric Brain Injury Symposium, Hospital for Sick Children  
“Impact of seizures on the immature brain”  
Toronto, Canada, 7/09

**2009**

Nordic Medical Research Council Symposium Early Development Brain Function  
“Challenges in the development of novel age-specific neonatal seizure therapies”  
Helsinki, Finland, 10/09

**2010**

“The Paradox of the Teen Brain: Debunking Myths with Fact”  
Montreal Neurological Institute, McGill University, Montreal, Canada, 6/10

**2010**

“Epilepsy Spectrum Disorder: Interaction of Mechanisms of Ictal and Non-Ictal Components”  
Donald Baxter Lecture, Montreal University Neurology Day,  
McGill University, Montreal, Canada, 6/10

**2011**

“Age determines injury mechanism in the perinatal brain”  
Pediatric Brain Injury Symposium, Hospital for Sick Children  
Toronto, Canada 7/11

**2011**

WONOEPE Symposium  
“Post-translational mechanisms in epileptogenesis”  
Rome, Italy, 8/11

**2011**

International League Against Epilepsy 2011 Meeting  
“Epilepsy Destroys Lives: The North American Commission and the Institute of Medicine Efforts”  
Rome, Italy, 8/11

**2012**

European Epilepsy Meeting 2012  
“Mechanisms of neonatal seizures”  
Chairperson  
London, England 9/12

**2012**

Translational Epilepsy Workshop  
“Future of epilepsy research”  
London, England, 9/12

**2013**

International League Against Epilepsy 2013 Meeting  
“Mechanisms of Neonatal Seizures and New Therapies”  
Montreal, Canada, 6/13

**2014**

Chairperson, “A Roadmap Forward: Addressing the Challenges”  
Institute of Medicine  
Improving Access to Essential Medicines for Mental, Neurological and Substance Use Disorders in  
Sub-Saharan Africa: A Workshop  
Addis Abbaba, Ethiopia, 1/14

**2014**

“Epileptogenesis in the developing brain”  
San Servelo Venice Neuroscience Course  
Venice, Italy, 7/14

**b. Professional and Educational National Leadership Roles:**

**2000-2003**

Chair, Annual Meeting Committee  
American Epilepsy Society

**2003-2006**

Chair, Council on Education  
American Epilepsy Society

**2003-2006**

Chair, Continuing Medical Education Subcommittee  
Society for Neuroscience

**2006-2007**

Chair, Program Committee  
Society for Neuroscience

**2007-2011**

Chair, Merritt Putnam Symposium Committee  
American Epilepsy Society

**2007-2008**

Chair, Advocacy Committee  
American Epilepsy Society

**2007-2010**

American Epilepsy Society  
Executive Board Member

**2007-2011**

Society for Neuroscience  
Council Member

**2008-2010**

American Neurological Association

Nominating Committee

**2009-2010**

American Epilepsy Society  
Second Vice President

**2010-2011**

American Epilepsy Society  
Vice President, President-Elect

**2011-2012**

American Epilepsy Society  
President

**3. Major Curriculum Offerings**

**1995-2001**

Course Director  
Comprehensive Review and Update on Cerebrovascular Disease  
Harvard Continuing Medical Education

**1999**

Course Director  
Neurobiology 300 Graduate Seminar Series  
Division of Medical Sciences  
Harvard Medical School

**2010- 2012**

Course Co-Director  
Intensive Course in Translational Medicine  
Harvard Medical School

**E. Report of Clinical Activities**

**1. Description of clinical practice**

1987-1991	Preceptor and Attending Resident's Outpatient Neurology Clinic Brigham and Women's Hospital, Boston, MA (weekly clinics)
1987-1991	Attending, Consult and Inpatient Service, Neurology West Roxbury VA Medical Center, West Roxbury, MA (1 month per year)
1987-2012	Attending, Neurology Outpatient Clinic Children's Hospital, Boston, MA (1 clinic per week)
1987-2012	Attending, Neurology Outpatient Clinic Brigham and Women's Hospital, Boston, MA (1 clinic per week)
1991-2006	Attending, Consult and Ward Service, Neurology (1 month per year) Brigham and Women's Hospital, Boston, MA
1994-1996	Director, Cerebrovascular Service, Department of Neurology Brigham and Women's Hospital, Boston, MA

---

2000-2012	Preceptor, Resident Clinic, Neurology Outpatient Clinic Department of Neurology, Brigham and Women's Hospital, Boston, MA
2013	Preceptor, Resident Clinic, Neurology Outpatient Clinic Hospital of the University of Pennsylvania Perelman School of Medicine, Philadelphia, PA
2014-	Attending, Consult Service Hospital of the University of Pennsylvania Perleman School of Medicine, Philadelphia, PA

### PART III: BIBLIOGRAPHY

#### Original Articles (\* denotes first author trainee of Dr. Jensen)

1. Spinelli DN, **Jensen FE**. Plasticity: The mirror of experience. *Science* 1979;203:75-78. (PMID758683)
2. Spinelli DN, **Jensen FE**, Viana Di Prisco G. Early experience effect on dendritic branching in normally reared kittens. *ExpNeurol* 1980;68:1-11.(PMID7363979)
3. Duffy FH, **Jensen FE**, Erba G, Burchfiel JL, Lombroso CT. Extraction of clinical information from EEG background activity -the combined use of BEAM and intravenous sodium thiopental. *Ann Neurol* 1984;15:22-30.
4. **Jensen FE**, Harris KH. Preservation of neuronal ultrastructure in hippocampal slices using rapid microwave enhanced fixation. *J Neurosci Meth* 1989;29:217-230.
5. **Jensen FE**, Applegate CD, Holtzman D, Belin T, Burchfiel J. Epileptogenic effects of hypoxia in immature rodent brain. *Ann Neurol* 1991;29(6):629-637.
6. **Jensen FE**, Applegate CD, Burchfiel J, Lombroso CT. Differential effects of perinatal hypoxia and anoxia on long term seizure susceptibility in the rat. *Life Sci* 1991;49:399-407.
7. **Jensen FE**. Short Note - Rapid microwave fixation of brain tissue for electron microscopy. *Eur J Morphol* 1991;29(3):210-212.
8. Harris KM, **Jensen FE**, Tsao BS. Comparison of dendritic spines and synapses in area CA1 of the rat hippocampus at postnatal day 15 and adults, with implications for the maturation of long term potentiation. *J Neurosci* 1992;12(7):2685-2705.
9. Chen H-S\*, Pelligrino J, Aggarwal S, Lei S, Warach S, **Jensen FE**, Lipton SA. Memantine: Open channel block of NMDA elicited response and its therapeutic advantage. *J Neurosci* 1992;12(11):4427-4436.
10. **Jensen FE**, Holmes G, Lombroso CT, Blume H, Firkusny I. Age dependent long term changes in seizure susceptibility and neurobehavior following hypoxia in the rat. *Epilepsia* 1992;33(6):971-980.
11. **Jensen FE**, Firkusny I, Mower G. Differences in c-fosimmunoreactivity due to age and mode of seizure induction. *Mol Br Res* 1993;17:185-193.

12. **Jensen FE**, Tsuji M, Offut M, Firkusny I, Holtzman D. Profound, reversible energy loss in the hypoxic immature brain. *Dev Br Res* 1993;73(1):99-105.
13. Aizenman E, **Jensen FE**, Gallop PM, Rosenberg PA, Tang LH. Further evidence that pyrroloquinolinequinone interacts with the N-methyl-D-aspartate receptor redox site in rat cortical neurons in vitro. *NeurosciLett* 1994;168:189-192.
14. **Jensen FE**, Gardner G, Williams AP, Gallop P, Tang L, Aizenman E, Rosenberg P. The putative essential nutrient pyrroloquinolinequinone is neuroprotective in a rodent model of hypoxic/ischemic brain injury. *Neuroscience* 1994;62:399-406.
15. Thurber SJ, Mikati M, Stafstrom C, **Jensen FE**, Holmes G. An ontogenetic study of the behavioral and electroencephalographic effects of quisqualic acid. *Epilepsia* 1994;35:868-876.
16. Tsuji M, Allred E, **Jensen FE**, Holtzman D. Phosphocreatine and ATP regulation in the hypoxic immature rat brain. *Dev Brain Res* 1995;85:192-200.
17. **Jensen FE**, Pareides G, Charness M. The neuroprotective effect of OP-1. *NeurosciLett* 1995;187:21-24.
18. **Jensen FE**, Blume H, Alvarado SP, Firkusny IR, Geary C. NBQX blocks acute and late epileptogenic effects of perinatal hypoxia. *Epilepsia* 1995;36(10):966-972.
19. Wang C\*, **Jensen FE**. NMDA involvement in age dependent differences in seizure susceptibility in hippocampal slices. *Epilepsy Res* 1996;23(2):105-113.
20. Applegate CD, **Jensen FE**, Burchfiel J, Geary C, Lombroso CA. Effects of neonatal hypoxia on septal and amygdala kindling. *Epilepsia* 1996;37:723-727.
21. **Jensen FE**, Wang C. Hypoxia-induced hyperexcitability in vivo and in vitro in the immature hippocampus. *Epilepsy Res* 1996;26:131-140.
22. Holtzman D, Meyers R, Khait I, **Jensen FE**. Brain creatine kinase reaction rates and reactant concentrations during seizures in developing rats. *Epilepsy Res* 1997;27:7-11.
23. Holtzman D, Meyers R, O'Gorman E, Khait I, Walliman T, Allred E, **Jensen FE**. In vivo phosphocreatine and ATP regulation in mice fed a creatine analog. *Am J Physiol (Cell Physiol)* 1997;272(5-Pt1):C1567-1577.
24. Holtzman D, Mulkern R, Meyers R, Cook C, Allred E, Khait I, **Jensen FE**, Tsuji M, Laussen P. In vivo phosphocreatine and ATP in piglet cerebral gray and white matter during seizures. *Brain Res* 1997;783:19-27.
25. **Jensen FE**, Wang C, Stafstrom C, Liu Z, Geary C, Stevens MC. Acute and chronic increases in excitability in rat hippocampal slices after perinatal hypoxia in vivo. *J Neurophysiol* 1998;79:73-81.
26. Chen H-S\*, Wang YF, Rayadu PV, Edgecomb P, Neill J, Lipton S, **Jensen FE**. Neuroprotective concentrations of the NMDA open-channel blocker memantine are effective without cytoplasmic vacuolation following post-ischemic administration and do not block maze learning or LTP. *Neuroscience* 1998;86:1121-1132.



27. Holtzman D, Togliatti A, Khait I, **Jensen FE**. Creatine increases survival and suppresses seizures in the hypoxic immature rat. *Pediatr Res* 1998;44:410-414.
28. Holtzman D, Khait I, Mulkern I, Allred E, Rand T, **Jensen FE**, Kraft R. In vivo development of brain phosphocreatine in normal and creatine-treated rabbit pups. *J Neurochem* 1998;73(6):2477-2484.
29. Stafstrom CE\*, Wang C, **Jensen FE**. Electrophysiological observations in hippocampal slices from rats treated with the ketogenic diet. *DevNeurosci* 1999;21:393-399.
30. Sanchez RM\*, Wang C, Gardner G, Orlando L, Rosenberg PA, Aizenman E, **Jensen FE**. Novel role for the NMDA receptor redox site in the pathophysiology of seizures. *J Neurosci* 2000;20:2409-2417.
31. Follett P\*, Volpe JJ, Rosenberg PA, **Jensen FE**. NBQX attenuates excitotoxic injury in developing white matter. *J Neurosci* 2000;20:9235-9241.
32. Sanchez RM\*, **Jensen FE**. Maturation aspects of mechanisms of epilepsy and consequences for the immature brain. *Epilepsia* 2001;42:577-585.
33. Koh S\*, **Jensen FE**. Topiramate blocks seizures in a rodent model of perinatal hypoxic encephalopathy. *Ann Neurol* 2001;50:366-372.
34. Sanchez RM\*, Koh SK, Wang C, Rio C, Corfas G, **Jensen FE**. Decreased GluR2 expression and increased synaptic excitability in immature rat hippocampus following hypoxia-induced seizures. *J Neurosci* 2001;21:8154-8163.
35. Lehnardt S, Lachance C, Patrizi S, Lefevre S, Follett PL, **Jensen FE**, Rosenberg PA, Volpe JJ, Vartanian T. The toll-like receptor TLR4 is necessary for lipopolysaccharide-induced oligodendrocyte injury in the CNS. *J Neurosci* 2002;22:2478-2486.
36. **Jensen FE**. The role of glutamate receptor maturation in perinatal seizures and brain injury. *Int J DevNeurosci* 2002;20(3-5):339-347.
37. Rosenberg PA, Dai W, Gan XD, Ali S, Fu J, Back SA, Sanchez RM, Segal MM, Follett PL, **Jensen FE**, Volpe JJ. Mature myelin basic protein-expressing oligodendrocytes are insensitive to kainate toxicity. *J Neurosci Res* 2003;71(2):237-245.
38. Deng W\*, Rosenberg PA, Volpe JJ, **Jensen FE**. Calcium-permeable AMPA/kainate receptors mediate toxicity and preconditioning by oxygen-glucose deprivation in oligodendrocyte precursors. *Proc Nat AcadSci USA* 2003;100(11):6801-6806.
39. Lehnardt S, Massillon L, Follett P, **Jensen FE**, Ratan R, Rosenberg PA, Volpe JJ, Vartanian T. Activation of innate immunity in the CNS triggers neurodegeneration through a Toll-like receptor 4-dependent pathway. *Proc Nat AcadSci USA* 2003;100(11):8514-8518.
40. Koh S\*, Tibayan F, Simpson J, and **Jensen FE**. NBQX or topiramate treatment following perinatal hypoxia-induced seizures prevents later increases in seizure-induced neuronal injury. *Epilepsia* 2004;45(6):569-575.
41. Follett, PL\*, Deng WD, Dai W, Talos D, Massillon L, Rosenberg PA, Volpe JJ, **Jensen FE**. Glutamate receptor mediated oligodendrocyte toxicity in periventricular leukomalacia: a protective role for topiramate. *J Neurosci* 2004;24:4412-4420.

42. Deng W\*, Wang H, Rosenberg PA, Volpe JJ, **Jensen FE**. Role of metabotropic glutamate receptors in oligodendrocyte excitotoxicity and oxidative stress. *Proc Nat AcadSci USA* 2004;101(20):7751-7756.
43. Wang H, Li J, Follett P, Cotanche D, **Jensen FE**, Volpe JJ, Rosenberg P. 12-Lipoxygenase plays a key role in cell death caused by glutathione depletion and arachidonic acid in rat oligodendrocytes. *Eur J Neurosci* 2004;20(8):2049-2056.
44. Sanchez RM\*, Dai W, Levada R, Lippman J, **Jensen FE**. AMPA/kainate receptor-mediated downregulation of GABAergic synaptic transmission by calcineurin following seizures in the developing rat brain. *J Neurosci* 2005;25(13):3442-3451.
45. Dzhala VL, Talos DM\*, Sdrulla DA, Brumback AC, Mathews GC, Benk TA, Delpire EJ, **Jensen FE**, Staley KJ. NKCC1 transporter facilitates seizures in the developing brain. *Nat Med* 2005;11:1207-1213. (**Jensen trainee Talos is co-first author**)
46. Talos DM\*, Follett PL, Levada R, Folkerth R, Volpe JJ, **Jensen FE**. Developmental regulation of AMPA receptor subunit expression in forebrain and relationship to regional susceptibility to hypoxic/ischemic injury: Part I. Rodent cerebral cortex and white matter. *J Comp Neurol* 2006;497:42-60. (PMCID:2828632)
47. Talos DM\*, Follett PL, Levada R, Folkerth R, Volpe JJ, **Jensen FE**. Developmental regulation of AMPA receptor subunit expression in forebrain and relationship to regional susceptibility to hypoxic/ischemic injury: Part II. Human cerebral cortex and white matter. *J Comp Neurol* 2006;497:61-77.
48. Deng W\*, Qin Yue R, Rosenberg PA, Volpe JJ, **Jensen FE**. Oligodendrocyte toxicity determined by local glutamate concentration and mitochondrial function. *J Neurochem* 2006;98(1):213-222.
49. Deng, W\*, Neve, R, Rosenberg, PA, Volpe, JJ, **Jensen, FE**. Alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate receptor subunit composition and cAMP-response element-binding protein regulate oligodendrocyte excitotoxicity. *J Biol Chem* 2006;281(47):36004-36011.
50. Meikle, L, Talos, D\*, Onda, H, Pollizzi, K, Rotenberg, A, Sahin, M, **Jensen, FE\***, Kwiatkowski, DJ\*. A mouse model of tuberous sclerosis: neuronal loss of Tsc1 causes dysplastic and ectopic neurons, reduced myelination, seizure activity, and limited survival. *J. Neurosci* 2007;27(21):5546-58 . (**Jensen and Kwiatkowski are co-corresponding authors**, Talos is co-first author) (PMID17522300)
51. Rotenberg, A\*, Harrington, M.G, Birnbaum, D. S, Madsen, J. R. Glass, Iain, E. S., **Jensen, FE**, Pascual-Leone, A, Minimal heating of titanium skull plates during 1Hz repetitive transcranial magnetic stimulation, *Clinical Neurophysiology* 2007; 118(11): 2536-2538.(PMID17890148)
52. Lechpammer M\*, Manning SM, Samonte F, Nelligan J, Sabo E, Talos DM, Volpe JJ, **Jensen FE**. Minocycline treatment following hypoxic/ischaemic injury attenuates white matter injury in a rodent model of periventricular leucomalacia. *Neuropathology and Applied Neurobiology* 2008 34:379-393. (PMCID: 2719485)
53. Talos, DM\*, Cordero, K, Kwiatkowski, D, Black, PB, and **Jensen, FE**. Cell-specific alteration of glutamate receptor expression in TSC cortical tubers. *Ann Neurol* 2008; 63(4):454-65. (PMCID: 2701384)

54. Manning, SM\*, Talos, DM, Zhou, C, Selip, D, Park, H-K, Park, CJ, Volpe, JJ, **Jensen, FE**. NMDA receptor blockade with memantine attenuates white matter deficits in a rat model of periventricular leukomalacia. *J. Neurosci.* 2008; 28(26):6670-8. (PMCID: 2800040)
55. Rakhade, S\*, Zhou, C, Aujla, P, Fishman, R, Sucher, N, **Jensen, FE**. Early alterations of AMPA receptors mediate synaptic potentiation induced by neonatal seizures. *J. Neurosci.* 2008;28:7979-7990. (PMCID: 2679369)
56. Rotenberg, A, Muller, P, Birnbaum, D, Harrington, M, Riviello, JJ, Pascual-Leone, A, **Jensen, FE**. Seizure suppression by EEG-guided repetitive transcranial magnetic stimulation in the rat. *Clin Neurophysiol.* 2008 Dec;119(12):2697-702. (PMID: 18977170)
57. Aujla, P\*, Fetell, M, **Jensen, FE**. Talampanel suppresses the acute and chronic effects of seizures in a rodent neonatal seizure model. *Epilepsia*, 2009 50 (4):694-701. (PMCID: 2672962)
58. Gerstner, B, Lee, J, DaSilva, T, **Jensen, FE**, Volpe, JJ, Rosenberg, PA. 17 $\beta$ -Estradiol protects against hypoxic/ischemic white matter damage in the neonatal rat brain. *J Neurosci Res.* 2009;87(9):2078-86. (PMCID: 2770176)
59. Zhou, C\*, **Jensen, FE**, Sucher, NJ. Altered development of glutamatergic synapses in layer V pyramidal neurons in NR3A knockout mice. *Molecular and Cellular Neuroscience.* 2009; 42:419-426 (PMCID:19782137)
60. Rotenberg, A\*. Muller, PA, Vahabzadeh-Hagh, AM, Navarro X, López-Vales, R, Pascual-Leone, A, **Jensen, FE**. Lateralization of forelimb motor evoked potentials by transcranial magnetic stimulation in rats. *Clin. Neurophys.* 2010 Jan;121(1):104-8. (PMID: 19900839)
61. Sucher, NJ\*, Yu, E, Chan, SF, Mira, M, Lee, BJ., Xiao, B, Worley, PF, **Jensen, FE**, Association of the small GTPase Rheb with the NMDA receptor subunit NR3a. *Neurosignals.* 2010;18(4):203-9. (PMID:2116001)
62. Dean, J, Moravec, MD, Grafe, M, Abend, N, Ren, J, Gong, X, Volpe, JJ, **Jensen, FE**, Hohimers, R, Back, S. Strain-specific differences in perinatal rodent. *Dev Neurosci.* 2011 33:251-60.
63. Rakhade, SN\*, Klein, P, Huynh, T, Hilario-Gomez, C, Kosaras, B, Rotenberg, A, and **Jensen, FE**. Development of later life spontaneous seizures in a rodent model of hypoxia induced neonatal seizures. *Epilepsia* 2011; 52(4):753-65 (PMID:21366558)
64. Vahabzadeh-Hagh AM, Muller PA, Pascual-Leone A, **Jensen FE**, Rotenberg A\*. Measures of cortical inhibition by paired-pulse transcranial magnetic stimulation in anesthetized rats. *J Neurophysiol* 2011 Feb;105(2):615-24. (PMID:3059167)
65. Li, Y, Cleary, R\*, Kellogg, M, Soul, J, Berry, GT, **Jensen, FE**. Sensitive isotope dilution liquid chromatography/tandem mass spectrometry method for quantitative analysis of bumetanide in serum and brain tissue. *J. Chromat. Biol.* 2011; 879(13-14):998-100 (PMID:21415852)
66. Volpe JJ, Kinney HC, **Jensen FE**, Rosenberg PA. The developing oligodendrocyte: key cellular target in brain injury in the premature infant. *Int. J. Devl Neuroscience* 29 (2011) 565–582 (PMID:21382469)

67. Manning, SM\*, Boll, G, Volpe, JJ, **Jensen, FE**. The clinically available NMDA receptor antagonist memantine exhibits relative safety in the developing rat brain. *Int. J. Devl Neuroscience* 2011;29(7):767-73 (PMID21624454).
68. Sarco, DP\*, Boyer, K, Takeoka, M, **Jensen, FE**, Gregas, M, Lundy-Krigbaum, S, Waber, DP. Frequency of awake and sleep epileptiform discharges predicts mood and behavior in benign childhood epilepsy with centro temporal spikes *Epil and Beh*, 2011;22(2):298-303 (PMID 21862414).
69. Goto, J, Talos, DM\*, Klein, P, Qin, W, Chekaluk, Y, Anderl, S, Malinowska, I, Di Nardo, A, Bronson, R, Chan, J, Vinters, H, Kernie, S, **Jensen, FE**, Sahin, M, Kwiatkowski, D. Regulable neural progenitor-specific Tsc1 loss yields giant cells with organellar dysfunction in a model of tuberous sclerosis complex. *PNAS* 2011;108(45):1070-9 (PMID22025691)
70. Jantzie, LL\*, Talos, DM\*, Selip, DB\*, Li, A, Jackson, C, Folkerth, RD, Deng, W, **Jensen, FE**. Developmental Regulation of Group I Metabotropic Glutamate Receptors in the Premature Brain and their Protective Role in a Rodent Model of Periventricular Leukomalacia. *Neuron Glia Biology* Dec 14:1-12; (PMID: 22169210)
71. Zhou, C\*, Lippman-Bell, J\*, Sun, H\*, **Jensen FE**. Hypoxia-induced neonatal seizures diminish silent synapses and long-term potentiation in hippocampal CA1 neurons. *J.Neurosci.* 2011;14;31(50):18211-22. (PMID: 22171027)
72. Selip, DB\*, Jantzie, LL\*, Chang, M, Jackson, MC, Fitzgerald, EC, Boll, F, Murphy, AC, **Jensen, FE**. Regional differences in susceptibility to hypoxic-ischemic injury in the preterm brain: Exploring the spectrum from white matter loss to selective grey matter injury in a rat model. *Neurology Research International* 2012, 2012:725184. doi: 10.1155/2012/725184. Epub 2012 Mar 15. PMID: 22530125
73. Hsieh, TH, Dhamne, SC, Chen, JJ, Pascual-Leone, A, **Jensen, FE**, Rotenberg, A\*. A new measure of cortical inhibition by mechanomyography and paired-pulse transcranial magnetic stimulation in unanesthetized rats. *J Neurophysiol.* 2012 Feb;107(3):966-72 (PMID 22013238)
74. Kabakov AY, Muller PA, Pascual-Leone A, **Jensen FE**, Rotenberg A\*. Contribution of axonal orientation to pathway-dependent modulation of excitatory transmission by direct current stimulation in isolated rat hippocampus. *J Neurophysiol.* 2012 Apr;107(7):1881-9. (PMID: 22219028)
75. Talos, DM\*, Sun, H, Kosaras, B, Joseph, A, Folkerth, R, Poduri, A, Madsen, J, B, PM, **Jensen, FE**. Altered inhibition in Tuberous Sclerosis and Type IIB cortical dysplasia. *Ann Neurol* 2012;71(4):539-51 (PMID:22447678)
76. Talos, DM\*, Sun, H\*, Zhou, X\*, Fitzgerald, EC, Jackson, MC, Klein, PM, Lan, V, Joseph, A, **Jensen, FE**. The Interaction Between Early Life Epilepsy and Autistic-Like Behavioral Consequences: A Role for the Mammalian Target of Rapamycin (mTORC1) Pathway. *PLoS One* 2012 (May);7(5): e35885. doi:10.1371/journal.pone.0035885.(PMID: 22567115)
77. Talos, DM\*, Chang, M\*, Kosaras, B, Fitzgerald, E, Murphy, A, Folkerth, RD, **Jensen, FE**. Antiepileptic effects of levetiracetam in a rodent neonatal seizure model. *Ped. Res. Pediatr Res.* 2013 Jan;73(1):24-30. (PMID: 23138400)
78. Rakhade SN\*, Zhou C\*, Fitzgerald EF, Klein PM, Haganir RL, **Jensen FE**. Glutamate receptor 1 phosphorylation at Serine 831 and 845 modulates seizure susceptibility and hippocampal

- hyperexcitability following early life seizures. *J. Neurosci* 2012 Dec 5;32(49):17800-12 (PMID: 23223299)
79. Cleary, R\*, Sun, H\*, Huynh, T, Manning, SM, , Li, Yijun, Rotenberg, A, Talos, DM, Kahle, KT, Jackson, M, Rakhade, SN, Berry, G, **Jensen, FE**. Bumetanide enhances phenobarbital efficacy in a rat model of hypoxic neonatal seizures. *PLoS One* 2013;8(3):e57148. doi: 10.1371/journal.pone.0057148. (PMID: 23536761)
80. Sun, H\*, Kosaras, B, Klein, P, **Jensen, FE**. mTORC1 activation negatively regulates PLK2 mediated homeostatic compensation following neonatal seizures. *Proc Nat Acad Sci (PNAS)* 2013 Mar 26;110(13):5199-204. (PMID: 23479645)
81. Fernandez IS, Chapman KE, Peters JM, Kothare SV, Nordli DR Jr, **Jensen FE**, Berg AT, Loddenkemper T\*. The tower of Babel: survey on concepts and terminology in electrical status epilepticus in sleep and continuous spikes and waves during sleep in North America. *Epilepsia* 2013; Nov 16 [Epub ahead of print].
82. Jantzie LL\*, Talos, DM\*, Jackson MC, Park HK, Graham DA, Lechpammer, M, Folkerth RD, Volpe JJ, **Jensen FE**. Developmental Expression of N-methyl-D-aspartate (NMDA) Receptor Subunits in Human White and Grey Matter: Vulnerability in the Immature Brain. *Cerebral Cortex Cereb Cortex*; 2015 Feb;25(2):482-95  
PMID: 24046081
83. Wintermark P\*, Lechpammer M, Warfield SK, Kosaras B, Takeoka M, Poduri A, Madsen JR, Bergin AM, Whalen S, **Jensen FE**. Perfusion Imaging of Focal Cortical Dysplasia Using Arterial Spin Labeling: Correlation With Histopathological Vascular Density *J Child Neurol.* 2013 Nov;28(11):1474-1482. Epub 2013 May 21. PMID: 23696629
84. Theilhaber J, Rakhade SN\*, Sudhalter J, Kothari N, Pollard J, and **Jensen FE**. Gene expression profiling of a hypoxic seizure model of epilepsy suggests a role for mTOR and Wnt signaling in epileptogenesis *PLoS One* Sep 27;8(9):e74428. doi:10.1371/journal.pone.0074428. PMID: 24086344
85. Sengupta S\*, Weeraratne SD, Sun H, Phallen J, Rallapalli SK, Teider N, Kosaras B, Amani V, Pierre-Francois J, Tang Y, Nguyen B, Yu F, Schubert S, Balansay B, Mathios D, Lechpammer M, Archer TC, Tran P, Reimer RJ, Cook JM, Lim M, **Jensen FE**, Pomeroy SL, Cho YJ.  $\alpha$ 5-GABAA receptors negatively regulate MYC-amplified medulloblastoma growth. *Acta Neuropathol.* 2013 Nov 7. (PMID: 24196163)
86. Lippman J\*, Rakhade SN, Klein PM, Obeid M, Jackson MC, Joseph A, **Jensen FE**. AMPA Receptor antagonist NBQX attenuates later-life epileptic seizures and autistic-like social deficits following neonatal seizures. *Epilepsia* 2013 Nov;54(11):1922-32. doi: 10.1111/epi.12378. Epub 2013 Oct 1. PMID: 24117347
87. Obeid M\*, Rosenberg EC, Klein PM, **Jensen FE**. Lestaurtinib (CEP-701) attenuates “second hit” kainic acid-induced seizures following early life hypoxic seizures. *Epilepsy Res* 2014 May; 108 (4) :806-810. PMID: 24582454.
88. Loddenkemper T\*, Talos DM, Cleary RT, Joseph A, Sánchez Fernández I, Alexopoulos A, Kotagal P, Najm I, **Jensen FE**. Subunit composition of glutamate and gamma-aminobutyric acid receptors in status epilepticus. *Epilepsy Res.* 2014 May;108(4):605-15. doi: 10.1016/j.epilepsyres.2014.01.015. Epub 2014 Feb 2. PMID: 24613745

89. Muller P, Dhamme S, Vahabzadeh A, Pascuale-Leone A, **Jensen FE**, Rotenberg A\*. Suppression of motor cortical excitability in anesthetized rats by low frequency repetitive transcranial magnetic stimulation. *PLoS One*. 2014 Mar 19;9(3):e91065. doi: 10.1371/journal.pone.0091065. eCollection 2014. PMID: 24646791
90. Jantzie L\*, Hu, M, Park, HK, Jackson, M Yu J, **Jensen FE**. The chloride cotransporter NKCC1 inhibitor bumetanide protects against white matter injury in a rodent model of periventricular leukomalacia. *Ped. Res.*; 2015 Apr;77(4):554-62
91. Shaikh H, Lechpammer M\*, **Jensen FE**, Warfield SK, Hansen AH, Kosaras B, Shevell M, Wintermark P\* Increased Brain Perfusion Persists over the First Month of Life in Term Asphyxiated Newborns Treated with Hypothermia: Does it Reflect Activated Angiogenesis? *Transl Stroke Res*. 2015 Jan 27
92. Lechpammer M\*, Wintermark P\*, Merry KM, Jackson MC, Jantzie LL, **Jensen FE**. Dysregulation of FMRP/mTOR Signaling Cascade in Hypoxic-Ischemic Injury of Premature Human Brain. *J Child Neurol*. 2015 Aug 3. pii: 0883073815596617.
93. Dhamne SC, Ekstein D, Zhuo Z, Gersner R, Zurakowski D, Loddenkemper T, Pascual-Leone A, **Jensen FE**, Rotenberg A\*. Acute seizure suppression by transcranial direct current stimulation in rats. *Ann Clin Transl Neurol*. 2015 Aug;2(8):843-56. doi: 10.1002/acn3.226. Epub 2015 Jul 3.
94. Wintermark P\*, Lechpammer M\*, Kosaras B\*, Jensen FE, Warfield SK. Brain Perfusion Is Increased at Term in the White Matter of Very Preterm Newborns and Newborns with Congenital Heart Disease: Does this Reflect Activated Angiogenesis? *Neuropediatrics*. 2015 Oct;46(5):344-51. doi: 10.1055/s-0035-1563533. Epub 2015 Sep 4.
95. Zhou C\*, Sun H\*, Klein PM and **Jensen FE**. Neonatal seizures alter NMDA glutamate receptor GluN2A and 3A subunit expression and function in hippocampal CA1 neurons. *Front. Cell. Neurosci*. 2015 9:362. doi: 10.3389/fncel.2015.00362
96. Sun H\*, Juul H\*, **Jensen FE**. Models of hypoxia and ischemia-induced seizures. *J Neurosci Meth*. 2016 (PMID26434705) Feb 15;260:252-60. doi: 10.1016/j.jneumeth.2015.09.023
97. Yu, K, Kuzum, D, Hwang S-W, Kim B, Juul H, Kim N, Won S, Chiang K, Trumpis M, Richardson A, Cheng H, Fang H, Thompson M, Bink H, \*Talos D, Seo K J, Lee L, Kang S-K, Kim JH, Lee J, Huang Y, **Jensen FE**, Dichter M, Lucas T, Viventi J, Litt B, and Rogers J. Bioresorbable Silicon Electronics for Transient Spatio-temporal Mapping of Electrical Activity from the Cerebral Cortex *Nature Materials*. 2015 (7):782-91.
98. Lippman-Bell JJ\* Zhou C\*, Sun H, Feske JS, **Jensen FE**. Early-life seizures alter synaptic calcium-permeable AMPA receptor function and plasticity. *Mol Cell Neurosci*. 2016 Oct;76:11-20. doi: 10.1016/j.mcn.2016.08.002. Epub 2016 Aug 10.
99. Lechpammer M\*, Tran YP, Wintermark P, Martínez-Cerdeño V, Krishnan VV, Ahmed W, Berman RF, **Jensen FE**, Nudler E, Zagzag D. Upregulation of cystathione  $\beta$ -synthase and p70S6K/S6 in neonatal hypoxic ischemic brain injury. *Brain Pathol*. 2016 Jul 28. doi: 10.1111/bpa.12421
100. Amaral, S. Kessler, Sudha, Levy, T., Gaetz, W. McAndrew, C., Chang, B., Lopez, S., Braham, E., Humpl, D., Hsia, M., Ferry, K., Xu, Xiaowei, Elder, D., Lefkowitz, D., Feudtner, C., Thibaudeau, S., Lin, I., Kovach, S., Schwartz, E., Bozentka, D., Carrigan, R., Steinberg, D., Kanchwala, S., Zlotolow, D., Kozin, S., **Jensen, FE.**, Bryant, P., Shaked, A., Levine, M., Levin, S.. 18 month outcomes of

heterologous bilateral hand transplantation in a child. *Lancet Child and Adolescent Health*. 2017 July 18. Doi: [http://dx.doi.org/10.1016/S2352-4642\(17\)30012-3](http://dx.doi.org/10.1016/S2352-4642(17)30012-3)

### Books

**Jensen, FE** (with Nutt, A). *The Teenage Brain: A Neuroscientist's Survival Guide*. Harper Collins, New York. Publication date January 2015

### Reviews, Chapters, and Editorials

1. Spinelli DN, **Jensen FE**. Plasticity, experience, and resource allocation in motor cortex and hypothalamus. In: *Conditioning: Representation of Involved Neural Function*. Asilomar Conference, 1981.
2. Spinelli DN, **Jensen FE**. Brains, machines, and crystals of knowledge. In: Michie D, editor. *Machine Intelligence 10*. Cleveland, Ohio: Case Western University Press, 1981.
3. Duffy FH, Mower G, **Jensen FE**, Als H. Neural plasticity. In: Fitzgerald HF, Lester BM, Yogman MW, editors. *Theory and Research in Behavioral Pediatrics*. New York: Plenum Press, 1984.
4. Harris KM, **Jensen FE**, Tsao B. Ultrastructure, development, and plasticity of dendritic spine synapses in area CA1 of rat hippocampus: Extending our vision with serial electron microscopy and three dimensional analyses. In: Chan-Palay V, editor. *The Hippocampus: New Vistas*. *Neurology and Neurobiology*, Vol. 32. New York: Alan Liss, 1988.
5. **Jensen FE**. An animal model of perinatal hypoxia-induced seizures. *Ital J Neurosci* 1995;16:59-68.
6. **Jensen FE**, Craeger M. Cerebrovascular Disease. In: Braunwald E, editor. *A Slide Atlas of Heart Disease*, 1995.
7. **Jensen FE**. Cerebrovascular Disease. In: Loscalzo J, Craeger MA, Dzau VJ, editors. *Vascular Medicine (Second Edition)*. Boston: Little, Brown and Company, 1996.
8. **Jensen FE**. Acute and chronic epileptogenic effects of perinatal hypoxia: Animal models. In: Jonas R, Volpe J, Newburger J, editors. *Neurologic Complications of Cardiothoracic Surgery*. Boston: Butterworth-Heinemann, 1996.
9. **Jensen FE**. Perinatal hypoxic/ischemic brain injury. *Men Retard DevDisabil Res Rev* 1997;3:85-95.
10. Pearson D\*, **Jensen FE**. Neurologic consultation on the vascular medicine and surgery service. In: Samuels M, editor. *Hospitalist Neurology*. New York: Butterworth-Heinemann, 1999.
11. **Jensen FE**. Perinatal seizures. In: Nehlig A, Motte J, Moshe S, Plouin P, editors. *Epilepsy and Brain Development*. London: Libby Press, 2000.
12. **Jensen FE**. Acute and chronic effects of seizures in the developing brain: Experimental Models. *Epilepsia* 1999;Suppl 1:S51-58.
13. **Jensen FE**, Baram TZ. Developmental seizures induced by common early life insults: Short and long term effects on seizure susceptibility. *Ment Retard Dev Disabil Res Rev* 2000;6:253-257.

14. **Jensen FE**, Sanchez RM. Why does the developing brain demonstrate heightened susceptibility to febrile and other provoked seizures? In: Baram T, Shinnar S, editors. Febrile Seizures. New York: Butterworth Heinemann, 2002.
15. **Jensen, FE**. Relationship between encephalopathy and abnormal neuronal activity in the developing brain. In: Schwartzkroin PA, editor. International Review of Neurobiology - Epilepsy, Infantile Spasms and Developmental Encephalopathy. New York: Academic Press, 2002;49:23-35.
16. **Jensen FE**, Craeger M. Cerebrovascular disease. In: Braunwald E, editor. A Slide Atlas of Heart Disease, 2003.
17. Sanchez RM\*, **Jensen FE**. Maturational regulation of glutamate receptors and their role in neuroplasticity. In: Sheridan P, editor. Glutamate and Addiction. New Jersey: Humana Press, 2003.
18. Sanchez RM, **Jensen FE**. Modeling hypoxia-induced seizures and hypoxic encephalopathy in the neonatal period. In: Pitanken A, Schwartzkroin PA, Moshe SL, editors. Models of Seizures and Epilepsy. San Diego: Elsevier Press, 2005.
19. **Jensen FE**. The role of glutamate receptors in periventricular leukomalacia. J Child Neurol 2005; 20(12):950-959.
20. **Jensen FE**. Pediatric Epilepsy Models. Epilepsy Res 2006;1:28-31.
21. **Jensen, FE** and Bourgeois, B. Randomized trial supports use of Levetiracetam adjunctive therapy to treat partial seizures in children. Nature Clinical Practice Neurology 2006;2:596-597.
22. **Jensen, FE**. Developmental factors regulating susceptibility to perinatal brain injury and seizures. Curr Opin Pediatr 2006;18:628-633.
23. Silverstein FS, and **Jensen FE**. Neonatal Seizures, Ann Neurol 2007;62(2):112-20.
24. Swann J, Moshe N, **Jensen FE**, Baram T. Seizure mechanisms and vulnerability in the developing brain. In: Pedley T, Engel J, editors. Epilepsy: A Comprehensive Textbook. Lippincott; 2007.
25. Silverstein FS, **Jensen, FE**, Inder T, Hellstrom-Westas L, Hirtz, D, Ferriero, DM. Improving the Treatment of Neonatal Seizures: National Institute of Neurological Disorders and Stroke Workshop Report. J. Peds. 2008; 153(1):12-5.
26. **Jensen, FE**. The role of glutamate receptors in early life epilepsy. In: Schwartzkroin, PA, editor. Encyclopedia of Epilepsy Research, Vol 1: 429-436. Elsevier:2009
27. **Jensen, FE**. Developmental factors in the pathogenesis of neonatal seizures. J. Ped. Neurol. 2009;7:5-12. (PMCID2019097)
28. **Jensen, FE**. Post Traumatic Epilepsy: Treatable Epileptogenesis. Epilepsia, 2009;50(S2):1-3. (PMC2820879)
29. Jacobs, M, LeBlanc, G, Brooks-Kayal, A, **Jensen, FE**, Lowenstein, D, Noebels, J, Spencer, Swann, J. Curing Epilepsy: Progress and Future Directions, Epilepsy and Behavior. 2009; 14:438-445 (PMC2822433)



30. Rakhade, S\*, **Jensen, FE**. Epileptogenesis in the Immature Brain: Emerging Mechanisms. *Nature Rev Neurol* 2009; 5(7):380-91. (PMC2822660)
31. **Jensen, FE**. Neonatal Seizures: An Update on Mechanisms and Management. *ClinPerinatol* 2009; 881-900. (PMCID19944840)
32. **Jensen, FE**. Introduction--epileptogenic cortical dysplasia: emerging trends in diagnosis, treatment, and pathogenesis. *Epilepsia*. 2009 Oct;50Suppl 9:1-2.(PMC19761447)
33. **Jensen, FE** and Silverstein, F. Neonatal Seizures, in: Swaiman's Pediatric Neurology Eds. Swaiman, KF, Ashwal, S, Ferriero, DM, Schor, NF. Saunders. 2011
34. **Jensen, FE**. Epilepsy as a Spectrum Disorder: Implications from novel clinical and basic neuroscience. *Epilepsia*, 2011 Jan;52; Suppl 1:1-6.1528-1167(PMD21160011)
35. Baram, T, **Jensen, FE**, Brooks-Kayal, A. Does acquired epileptogenesis in the immature brain require neuronal death? *Epilepsy Currents* 2011 Jan–Feb; 11(1): 21–26.PMCID: (PMC3063568)
36. Kobow K, Auvin S, **Jensen FE**, Löscher W, Mody I, Potschka H, Prince D, Sierra A, Simonato M, Pitkänen A, Nehlig A, Rho JM. Finding a better drug for epilepsy: Antiepileptogenesis targets. *Epilepsia*. 2012 Nov;53(11):1868-1876, (PMID: 23061663)
37. Jacobs M, **Jensen FE**. Introduction to institute of medicine report: epilepsy across the spectrum: promoting health and understanding. *Epilepsy Curr*. 2012 Nov;12(6):243-4. doi: 10.5698/1535-7511-12.6.243. No abstract available. PMID: 23447725
38. Engel J Jr, Pitkänen A, Loeb JA, Dudek FE, Bertram EH 3rd, Cole AJ, Moshé SL, Wiebe S, **Jensen FE**, Mody I, Nehlig A, Vezzani A. Epilepsy biomarkers. *Epilepsia*. 2013 Aug;54 Suppl 4:61-9. doi: 10.1111/epi.12299. (PMID: 23909854)
39. Brooks-Kayal AR, Bath KG, Berg AT, Galanopoulou AS, Holmes GL, **Jensen FE**, Kanner AM, O'Brien TJ, Whittmore VH, Winawer MR, Patel M, Scharfman HE. Issues related to symptomatic and disease-modifying treatments affecting cognitive and neuropsychiatric comorbidities of epilepsy. *Epilepsia*. 2013 Aug;54 Suppl 4:44-60. doi: 10.1111/epi.12298. PMID: 23909853
40. Pitkänen A, Nehlig A, Brooks-Kayal AR, Dudek FE, Friedman D, Galanopoulou AS, **Jensen FE**, Kaminski RM, Kapur J, Klitgaard H, Löscher W, Mody I, Schmidt D. Issues related to development of antiepileptogenic therapies. *Epilepsia*. 2013 Aug;54 Suppl 4:35-43. doi: 10.1111/epi.12297. (PMID: 23909852 )
41. **Jensen, FE**. Epilepsy in 2013: Progress across the spectrum of epilepsy research. *Nature Neurology Reviews* 2014 Feb;10(2):63-4. doi: 10.1038/nrneurol.2013.277. Epub 2014 Jan 14. No abstract available. PMID: 24419682
42. Varadkar S, Bien CG, Kruse CA, **Jensen FE**, Bauer J, Pardo CA, Vincent A, Mathern GW, Cross JH. Rasmussen's encephalitis: clinical features, pathobiology, and treatment advances. *Lancet Neurol*. 2014 Feb;13(2):195-205. doi: 10.1016/S1474-4422(13)70260-6. Review. PMID: 24457189
43. **Jensen FE**, Paulson HL, Bar-Or A. Considering a career in neurology research? Heed these words. *Ann Neurol*. 2013 Sep;74(3):A11-2. doi: 10.1002/ana.24008.PMID: 25813981

44. Simonato M, Brooks-Kayal AR, Engel J Jr, Galanopoulou AS, **Jensen FE**, Moshé SL, O'Brien TJ, Pitkanen A, Wilcox KS, French JA. *Lancet Neurol*. The challenge and promise of anti-epileptic therapy development in animal models. 2014 Sep;13(9):949-60.
45. **Jensen FE** and Amara SM. Found in Translational: Training the Next Generation of Translational Neuroscientists. *Neuron* 2014 84:(5) 542-545.
46. Sun, H, **Jensen FE**. Modeling hypoxia-induced seizures and hypoxic encephalopathy in the neonatal period. In: Pitkanen A, Schwartzkroin PA, Moshe SL, editors. *Models of Seizures and Epilepsy*, 2<sup>nd</sup> Edition. San Diego: Elsevier Press, In press.

## Educational Material

### Syllabi:

- 2001-2002 Evolving Directions in the Management of Epilepsy. Presented by The National Institute of Neurological Disorders and Stroke of the National Institutes of Health, jointly sponsored by the University of Cincinnati and SynerMed Communications in cooperation with the American Epilepsy Society, American Academy of Neurology, and Epilepsy Foundation.
- 2004 Neuroprotection and Seizures in the Developing Brain. Cyber Seminar based on 2003 SFN Neurobiology of Disease Workshop.
- 2004 Neonatal Seizures. Michael J. Bresnan Child Neurology Course, Children's Hospital Boston and Harvard Medical School.
- 2006 Neonatal Seizures. Learning and Memory in the Adolescent Brain. Mechanisms of Epilepsy. Michael J. Bresnan Child Neurology Course, Children's Hospital Boston and Harvard Medical School.
- 2008 The Adolescent Brain. Mechanisms of Neonatal Seizures. Michael J. Bresnan Child Neurology Course, Children's Hospital Boston and Harvard Medical School.
- 2008 Merritt Putnam Symposium: Post-Traumatic Epilepsy. Ed. Jensen, FE. *Epilepsia*
- 2009 Merritt Putnam Symposium: Cortical Dysplasias. Ed. Jensen, FE. *Epilepsia*
- 2009 Harvard Medical School Intensive 2010 Course in Translational Medicine : online syllabus
- 2009 Merritt Putnam Symposium: Epilepsy Spectrum Disorder: *Epilepsia*
- 2010 Harvard Medical School Intensive 2011 Course in Translational Medicine : online syllabus
- 2012 Harvard Medical School Intensive 2011 Course in Translational Medicine :online syllabus
- 2012 Harvard Medical School Intensive 2012 Course in Translational Medicine :online syllabus

2013 Harvard Medical School Intensive 2013 Course in Translational Medicine  
:online syllabus

**Briefs of Amicus Curiae to the United States Supreme Court**

2009 Brief of Petitioner-Appellant at 2009, Terrance Jamar Graham v State of Florida, No. 08-7412; Joe Harris Sullivan v State of Florida, No. 08-7621

2012 Brief of Petitioner-Appellant at 2012, Evan Miller v State of Alabama, No. 10-9646, Kuntrell Jackson v State of Arkansas, No. 10-9647

**Federal Drug Administration – Investigation New Drug Approvals**

2008 FDA Investigational New Drug -Sponsor (Jensen): Bumetanide for the treatment of neonatal seizures. IND #101690 (Approved- 4/08) (clinical trials.gov/NCT00830531- changed to Janet Soul, MD when Dr. Jensen moved to Univ of Pennsylvania

**Patents**

1. Application title: “Methods and Compositions For Modulating Brain Damage”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
6921775	Issued 7/26/05	
  
2. Application title: “White Matter Neuroprotectant Pyrroloquinoline Quinone Compounds and Methods of Use Thereof”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
60/383,489	5/24/02	Expired
  
3. Application title: “Method For Treating And Controlling The In-Vivo Effects Of Hypoxia-Induced Seizures in a Perinatal Subject”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
60/466,987	05/01/03	Expired
  
4. Application title; “Chloride Ion Uptake Modulators and Uses Thereof”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
11/464,977	08/16/06	Abandonment Pending
  
5. Application title, “Transcranial magnetic stimulation (TMS) methods and apparatus”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
12/312,931	6/1/09	Pending
  
6. Application title, “Treating post seizure patients”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
US 12, 688,892	1/17/10	Pending
  
7. Application title, “Use of NKCC1 inhibitors for Vigabatrin toxicity”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
US 61/318,352	03/28/10	Expired
US13/069,311	03/22/11	Pending
PCT/US11/29467	03/22/11	

8. Application title: “ Treating neonatal seizure with polo-like kinase 2 (PLK2) signaling enhancers”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
61/658,894	2012	Filed
9. Application title: “ Treating epilepsy with Trk B receptor modulators”  

<u>Application No.</u>	<u>Filing Date</u>	<u>Status</u>
CMC2397	2012	Pending