CURRICULUM VITAE

PERSONAL DATA

Name	Jaideep Kapur
Address	Department of Neurology, Box 800394 University of Virginia- HSC Charlottesville, VA 22908-0394, USA
E-mail	jk8t@virginia.edu
Home address	1 Steubin lane, Charlottesville, VA 22911, USA
E-mail	jk8t@virginia.edu
Phone	(434) 924-5312
Fax	(434) 982-1726
Date of Birth	01/01/1961
Citizen	Unites States of America

EDUCATION

1979-1985	M.B., B.S., Maulana Azad Medical College, University of Delhi, Delhi, India
1985-1988	Ph.D., Neuroscience, University of Virginia, Charlottesville, Virginia Advisor: E.W. Lothman, M.D., Ph.D.

TRAINING

1988-1989	Internship, Internal Medicine, Eastern Virginia School of Medicine, Norfolk, Virginia
1989-1992	Residency Training, Neurology, Medical College of Virginia, Virginia Commonwealth University, Richmond, Virginia
1992-1993	Clinical Electrophysiology and Epilepsy Fellowship, University Of Michigan, Ann Arbor, Michigan

ACADEMIC APPOINTMENTS

1991-1992	Chief Resident, Department of Neurology, Medical College of Virginia
1993-1994	Lecturer, Department of Neurology, University of Michigan
1994-1998	Assistant Professor, Department of Neurology, University of Michigan
1998-2001	Assistant Professor, Department of Neurology, University of Virginia
2001-2007	Associate Professor, (with tenure, 2004) Department of Neurology, University of Virginia
2006-2007	Harrison Distinguished Teaching Associate Professor, University of Virginia
2007-current	Professor of Neurology, University of Virginia
2007-2010	Harrison Distinguished Teaching Professor, University of Virginia
2010-current	Eugene Meyer III Professor of Neuroscience, University of Virginia
2007-2012	Vice-Chair for Research, Department of Neurology, University of Virginia
2012-2016	Director, Neurosciences Center, University of Virginia, Medical Center.
2016-	Director, UVA Brain Institute

CERTIFICATION

1988	Education Commission for Foreign Medical Graduates
1989	Federal Licensure Examination
1994	American Board of Psychiatry and Neurology (Neurology #39819)
1996	American Board of Clinical Neurophysiology (EEG)

LICENSES

1992-1998	Michigan Permanent License #4301059717
1998-current	Virginia Medical License #0101057328

HONORS

1972-1974	Government of India Merit Scholarship
1975-1977	Junior Science Talent Search Scholarship
1977-1985	National Talent Search Scholarship, National Council of Educational Research and Training, India
1985-1988	University of Virginia, Graduate Fellowship
1992	Distinguished Resident Award, Neurology, Medical College of Virginia, Virginia Commonwealth University
1992	Young Investigator Travel Award, American Epilepsy Society
2009-2010	President, American Epilepsy Society
2013	Epilepsy Research Recognition Award (Basic Science), American Epilepsy Society
2017	Swebilius Lecture and Award, Yale University
2017	Ambassador Award, International League Against Epilepsy

PROFESSIONAL AFFILIATIONS

1986-	Society for Neuroscience
1987-	American Epilepsy Society
1990-	American Academy of Neurology
1998-	American Clinical Neurophysiology Society
2006-	American Neurological Association

EDITORIAL BOARDS

1996-1999	Epilepsy Advances
1998-2006	Epilepsy Research
2001-2014	Contributing Editor, *Epilepsy Currents*
2011-2013	Neurology
2011-2014	Neurosurgery
2013-2020	Experimental Neurology (section Editor Epilepsy)
2016-2019	Annals of Neurology

Ad hoc reviewer

1993-current	Annals of Neurology, Brain, Brain Research, British Journal of Pharmacology, Epilepsia, Experimental Neurology, European Journal of Neuroscience, Journal of Neurochemistry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Physiology, Molecular Brain

Research, Nature, Nature Neuroscience, Neurobiology of Disease, Neuropharmacology, New England Journal of Medicine, Neuroscience, Neurosurgery, Neurology.

TEACHING ACTIVITIES

University Teaching: University of Michigan

1995-1998	Lectures in basic neurobiology course for the neurology residents
1995-1998	Lectures in the teaching course for clinical neurophysiology fellows. Neurobiology of Epilepsy and Sleep

Clinical Teaching

1995-1997	University of Michigan M3 student ward teaching Clinical Neurology
1995-1997	University of Michigan teaching residents and fellows Clinical Neurophysiology

University of Virginia: Classroom Teaching

1999-Now	Medical Pharmacology: Anti-epileptic drugs lecture
1999	Introduction to Clinical Medicine: Neurology
1999-2006	Pharmacology: Molecules to systems (Pharm 902) 1 lecture, sedatives
1999-2005	Neurophysiology: (Biol 817 and Phys 862 GSAS) 4 lectures
2004-2012	Graduate Neurobiology (NESC703) 2 lectures
2005	Graduate Physiology (BIMS 832) 2 lectures

Clinical Teaching

1998-1999	Teaching Epilepsy and Clinical Neurology each Wednesday afternoon: 1 M4 student, 2 residents and 1 fellow
1999-2000	Teaching Epilepsy and Clinical Neurology each Wednesday afternoon: 1 M4 student, 2 residents and 3 fellows
1998-	Teaching Epilepsy and Clinical neurophysiology Fellow and resident on epilepsy service, 1-3 months each year.
2000-	Supervising two fellows and a resident in epilepsy clinic one ½ day per week

Ph.D. Dissertation supervised

2002-2005	Catherine Croft Swanwick: BDNF regulation of GABAergic synapses.
2002-2006	Stacey Ann Trotter (Bass): GABA synapses of the malformed cortex (Co-mentored with Kevin Lee, Neuroscience)
2005-2011	Matthew Rannals, Homeostatic plasticity at GABergic synapses.
2008-2012	Sarah Johnson, Neuronal synchrony during seizures (Co-mentored with Jack Hudson, Chemical Engineering)
2010-2013	Xin Ren, Neuronal synchrony during Kindling (Co-mentored with Jack Hudson, Chemical Engineering).
2015-2019	Alexander Ksendzovsky, MD
2017-	Anastasia Brodovskaya
2020-	Daria Skwarzyńska

Dissertation Committee

1998-1999	Maria Denslow, Neuroscience Graduate Program.

2000	Edmund M. Talley, Neuroscience Graduate Program.
2005-2007	Catherine Christian
2005	Area paper committee, Rachel Hallmark
2006-2009	Mark Fitzgerald
2007-2008	Joel Baumgart
2009-2010	Justyna Pliecka
2010-2012	Charles Askew
2011-2014	Deblina De
2014-2016	James Hounshell
2014-2016	Eve Privman
2015-2019	Lise Harbom
2015-2018	Bryan Barker
2015-2018	Peter Klein
2016-2020	Adam Lu
2016-	Kathryn Salvati

COMMITEES & LEADERSHIP POSTIONS

American Epilepsy Society

1998	Scientific Program Committee
1998	Task Force on Epileptogenesis
1997-1999	Continuing Medical Education Committee,
1998-2001	Investigators Workshop Committee
1998-2002	Task force on reorganization of the annual meeting.
2000-2002	Chair, Internet CME sub-committee
2002-2004	Board of Directors
2003 2004	Co-Chair Year round CME committee
2002-2004	Research and Training Committee
2005-2007	Chair, Research and Training Committee, and Ex officio member of the Board
2007-2011	Executive Committee of the Board (Second Vice-President, vice President, President and Past President)
2009-2010	President
2011-2013	Nominating Committee
2012-2015	Chair, International Affairs Committee
2014-2016	Chair, Development Committee
2012-2019	Lennox and Lombroso Trust

International League Against Epilepsy

2010	Member, Therapeutics Commission
2015-	Member, Education Taskforce
2011-2016	Member, North American Commission,

American Neurological Association

2009-2012	Scientific Program Advisory Committee
2010-2012	Continuing Medical Education Committee
2016-2018	Board of Directors

Epilepsy Foundation (National)

2001-2009	Professional Advisory Board, Epilepsy Foundation of America
2001-2003	Chair, Research and Clinical Training Fellowship application review committee.
2006-2009	Chair, Research Council.
2006-2008	Executive Committee, Professional Advisory Board.

Epilepsy Research Foundation

2006-2008	Vice President & Member Board of Directors
2008-2010	President of the Board of Directors
2010-2013	Board of Directors

Citizens United against Epilepsy (CURE- Epilepsy Foundation)

2016-2018	Scientific Advisory Board

National Institutes of Health

1997	Ad Hoc Member, Brain Disorders and Clinical Neurosciences Initial review Groups, ZRG1-BDCN1, National Institutes of Health (NIH).
2001	Ad Hoc Member Fellowship Review Panel, Center for scientific review.
2001	Ad Hoc Member SSS-P Special Emphasis Panel, Cellular and Developmental Neurosciences, Integrated Review Group, Center for Scientific Review
2002	Ad Hoc Member Brain Disorders and Clinical Neurosciences Initial Review Group, BDCN1, Center for Scientific Review.
2002	Ad Hoc Member Brain Disorders and Clinical Neurosciences Initial Review Group, BDCN2, Center for Scientific Review.
2002	Ad Hoc Member Training Grant & Career Development Review Committee, Scientific Review Branch, NINDS,
2003	Ad Hoc Member Brain Disorders and Clinical Neurosciences Initial Review Group, BDCN2.
2004	Ad Hoc member Clinical Neurosciences and Disease study section, Center for Scientific review.
2004-2008	Permanent member Clinical Neurosciences and Disease study section, Center for Scientific review
2005-6	Ad hoc member, Epidemiology of Clinical Disorders and Aging review panel, CSR
2006-2008	CounterACT proposal Review panel NINDS
2009	Special Emphasis panel for challenge grants, member conflict review panel, R25 review panel.
2010-2016	Special emphasis panels, Member conflict reviews, etc. NIH CSR.
2016-2022	Member, Clinical Neuroplasticity and Neurotransmitters Study Section, NIH CSR.

Tuberous Sclerosis Alliance

2005	Grant review board

Medical College of Virginia

1991-1992	House staff Council

1992	Internal Review Committee: Department of Psychiatry, Residency Program, Medical College of Virginia.

University of Michigan

1995-1998	Faculty Recruitment Committee, Department of Neurology

University of Virginia

2001-2008	Continuing Medical Education Committee, School of Medicine
2004-2007	Research Advisory Committee, School of Medicine
2007	Pharmacology Chair Search Committee, School of Medicine
2008	Internal grant review committee, Office of Vice President of Research
2008-2012	Promotions and Tenure Committee, School of Medicine
2012-2015	Clinical Strategies Group, Medical Center and School of Medicine.
2012-2015	Clinical Research Oversight Committee, Medical Center and School of Medicine
2014-2016	Provost's University Promotions and Tenure Committee

CONSULTANT

2001-2005	US Army Medical Research and Materials Command: Advanced Anticonvulsant System focus group, Material Expert.
2009	Program Advisory Committee (PAC) for Specialized Neuroscience Research Program (SNRP), Universidad Central del Caribe, San Juan, PR
2012	Neurotherapeutics Pharma, GABA advisory group
2015	Eisai Pharmaceuticals: Role of AMPA receptors in epilepsy.

INTELLECTUAL PROPERTY

2013	Anti GABA-A receptor γ2 and δ subunit mouse monoclonal antibody, Commercialized by UVA patent group.
2015	IND 119756: Food and Drug Administration (FDA) ESETT "A multicenter, randomized, blinded, comparative effectiveness study of fosphenytoin, valproic acid, or levetiracetam in the emergency department treatment of patients with benzodiazepine-refractory status epilepticus".

GRANT SUPPORT

Principal investigator (Current)

2014-2021	NIH-NINDS, U01NS088034 "Established Status Epilepticus Treatment Trial (ESETT)" Contact PI, Multiple PIs: with Drs. Robert Silbergleit and James Chamberlain.
2000-2021	NIH-NINDS, RO1 NS040337 "Treatment of status epilepticus".

Co-Investigator

2017-2019	ESETT pharmacokinetics and Pharmaco-dynamics study

Principal Investigator Lisa Coles, PhD University of Minnesota
NIH RO1 0.36 Calendar Month.

2019 –2023 The integrated Translational Health Research Institute of Virginia (iTHRIV): Using data to improve health Role: Network Capacity Core as the Project Co-Lead (1.2 Calendar Months) UL1 PIs: Karen C. Johnston, MD & Donald E. Brown, PhD Funding Agency: NIH/NCATS.

Previous

1993-1994 Lennox Fellowship, American Epilepsy Society
1994 National Epifellows Foundation
1994-1999 Career Investigator Development Award, NIH, KO8-NS01748, "Heterogeneity of CNS $GABA_A$ receptors"
1996-1997 Epilepsy Foundation of America: "Progression of status epilepticus"
1998-2003 NIH, Independent Scientist Award, KO2-NS 02081 "Understanding status epilepticus".
2002-2004 Independent Investigator Award, National Alliance for Research into Schizophrenia and Depression, "Mechanism of Action of Pregnenolone Sulfate"
2009-2010 Ivy foundation (intramural), with Prof. Jack Hudson "Deep brain stimulation for epilepsy with dynamic feedback".
2006-2011 NIH-NINDS UO1 NS58204 "Mechanism and treatment of nerve-agent induced seizures.
2010-2013 PR093963 Department of Defense, Congressionally Directed Medical Research Program (CDMRP) Peer-reviewed Program "M current-based therapies for nerve agent seizures"
2009-2014 2009-2014 NIH-NINDS R25NS065733 Multiple PI mechanism, CO PI with Karen Johnston, MD "NINDS Research Education Program for Residents and Fellows at the University of Virginia".
2011-2013 Silencing Hyperactive Neurons as a Treatment for Temporal Lobe Epilepsy CURE Epilepsy Foundation. Co- Principal Investigators: Ed Perez Reyes & Jaideep Kapur
2012-2013 Mechanisms of catamenial epilepsy, Epilepsy Foundation.
2003-2018 NINDS, RO1 NS044370 "Neurosteroid regulation of seizures". Direct costs: $218,750.
2014-2017 NIH NINDS 1R01NS091452 Calcium channel and glutamate receptor signaling at synapses". PI Julius Zhu Role Co-Investigator, effort 5%.
2016-2018 NIH NINDS, R21 NS096461 Low Intensity Focused Ultrasound Neuromodulation" Role: Co-investigator , Principal Investigator: W. Jeffrey Elias.
2016-2017 NIH NINDS RO1 1R01NS097726 Developing a drug-inducible gene therapy for temporal lobe epilepsy" Agency: Role: Co-investigator , Principal Investigator: Edward Perez-Reyes

<u>Support for Trainees:</u>

2000-2001 Epilepsy Foundation of America, Postdoctoral Fellowship, Zakaria Mtchedlishvilli, Ph.D., Research Associate
2002-2005 NIH, Predoctoral NRSA award, Catherine Croft.

2002-2003	Epilepsy Foundation of America, Postdoctoral Fellowship, Chengsan Sun, Research Associate.
2004-2006	NIH Predoctoral NRSA award, Stacey Trotter Co-mentor with Kevin Lee
2005-2010	NIH, KO8 Mentored Clinician Investigator Development Award, Howard Goodkin, Assistant Professor of Neurology and Pediatrics
2006-2008	American Heart Association Grant-in-Aid to Santina Zanelli, Assistant Professor, Pediatrics
2007-2008	Epilepsy Foundation Postdoctoral Fellowship to Suchitra Joshi Ph.D., Research Associate
2009	Epilepsy Foundation Postdoctoral Fellowship to Karthik Rajasekharan Ph.D., Research Associate
2010-2015	NIH, KO8 Mentored Clinician Investigator Development Award, Santina Zanelli, M.D. Assistant Professor of Pediatrics (Neonatology)
2017-2022	NIH, KO8 Mentored Clinician Investigator Development Award, Jennifer Burnsed, Assistant Professor of Pediatrics (Neonatology)

CURRENT TRAINEES

Faculty

2014	Dr. Jennifer Burnsed, MD, Assistant Professor Department of Pediatrics
2016	Dr. Andrew Schomer, Assistant Professor of Neurology
2020	Dr. Laurie Brenner, Assistant Professor of Neurology

Postdoctoral fellows

2015	Huayu Sun, PhD
2018	Aijaz Naik, PhD
2019	Nadia Adotevi, PhD

Graduate students:

2017	Anastasia Brodovskaya

PREVIOUS TRAINEES

1999-2006	Zakaria Mtchdlishvilli, Ph.D Current Position: Assistant Professor Center for Neuroscience Research Allegheny-Singer Research Institute
2002-2005	Catherine Croft Swanwick, Graduate student, Current position Science Writer
2002-2007	Howard Goodkin, M.D., Ph.D. current position: Shur Family Professor, Department of Neurology and Pediatrics, University of Virginia
2001-2008	Chengsan Sun, Ph.D. Current position, Instructor, Dept of Psychology, University of Virginia
2004-2007	Stacey Trotter Co-mentored with Prof. Kevin Lee, Neuroradiology fellow Johns Hopkins
2006-2009	Maksim Kozhemyakin, Ph.D., Assistant Professor Department of Neuroscience, University of Central Caribbean, Puerto Rico.
2006-2010	Matthew Rannals, Neuroscience Graduate Program. Next Position: Postdoctoral fellow, Johns Hopkins University

2008-2011	Sarah Johnson, Chemical Engineering Co-mentored with Prof. Jack Hudson, Currently Postdoctoral Fellow, University of Nebraska.
2009-2013	Xin Ren, Chemical Engineering, Co mentored with Prof. Jack Hudson GE capital One
2006-2018	Suchitra Joshi, Ph.D. Research Assistant Professor

BIBLIOGRAPHY

Peer Reviewed Publications:

1) Kapur J, Stringer JL, and Lothman EW, Evidence that repetitive seizures in the hippocampus cause a lasting reduction of GABAergic inhibition. Journal of Neurophysiology, (1989) 61:417-426.

2) Kapur J, and Lothman EW, Loss of recurrent inhibition precedes delayed spontaneous seizures in the hippocampus after tetanic electric stimulation. Journal of Neurophysiology, (1989) 61: 427-434.

3) Michelson HB, Kapur J and Lothman E W, Reduction of paired pulse inhibition in the CA1 region of the hippocampus by pilocarpine in naive and in amygdala-kindled animals. Experimental Neurology, (1989) 104: 264-271.

4) Kapur J, Michelson H B, Butterbaugh GG and Lothman EW, Evidence for a chronic loss of inhibition in the hippocampus after kindling: Electrophysiologic studies. Epilepsy Research, (1989) 4: 90-99.

5) Kapur J, Bennett Jr., JP, Wooten, GF and Lothman, EW Evidence for a chronic loss of inhibition in the hippocampus after kindling: Biochemical studies. Epilepsy Research, (1989) 4:100-108.

6) Kapur J, and Lothman EW, NMDA receptor activation mediates the loss of GABAergic inhibition induced by recurrent seizures. Epilepsy Research, (1990) 5: 103-111.

7) Lothman EW, Bertram EH, Kapur J and Stringer JL, Recurrent spontaneous hippocampal seizures in the rat as a chronic sequela to limbic status epilepticus. Epilepsy Research, (1990) 6:110-118.

8) Kapur J, Lothman EW and DeLorenzo RJ, Loss of $GABA_A$ receptors during partial status epilepticus. Neurology, (1994) 44: 2407-2408.

9) Kapur J, Pillai A, and Henry TA, Psychogenic elaboration of simple partial seizures. Epilepsia, (1995) 36: 1126-1130.

10) Kapur J and Coulter DA, Experimental status epilepticus alters $GABA_A$ receptor function in CA1 pyramidal neurons. Annals of Neurology, (1995) 38: 893-900.

11) Kapur J and Macdonald RL, Pharmacological properties of γ-aminobutyric acid $type_A$ receptors in acutely dissociated rat dentate granule cells. Molecular Pharmacology, (1996) 50: 458-466.

12) Kapur J and Macdonald RL, Cyclic AMP-dependent protein kinase enhances hippocampal dentate granule cell $GABA_A$ receptor currents. Journal of Neurophysiology, (1996) 76: 2626-2634.

13) Kapur J and Macdonald RL, Rapid seizure-induced reduction of benzodiazepine and ZN^{++} sensitivity of hippocampal dentate granule cell $GABA_A$ receptors. Journal of Neuroscience, (1997) 17: 7532-7540.

14) Kapur J and Macdonald RL, Postnatal development of hippocampal dentate granule cell $GABA_A$ receptor pharmacological properties. Molecular Pharmacology, (1999) 55:444-452.

15) Tietz EI, Kapur J and Macdonald RL Functional $GABA_A$ receptor heterogeneity of acutely dissociated hippocampal CA1 pyramidal cells. Journal of Neurophysiology, (1999) 81:1575-1586.

16) Kapur J, Haas KF and Macdonald RL Physiological properties of γ-aminobutyric $acid_A$ receptors from acutely dissociated rat dentate granule cells. Journal of Neurophysiology, (1999) 81:2464-2471.

17) Drury I, Selwa L M, Kapur J, Varma N, Beydoun A and Henry TR, Value of inpatient diagnostic CCTV-EEG monitoring in the elderly. Epilepsia (1999) 40:1100-1102

18) Macdonald R L and Kapur J Acute cellular alterations in the hippocampus after status epilepticus. Epilepsia (1999) 40 (Suppl. 1); S9-S20.

19) Jaitly R, Dhaduk N, Jensen M E, Naeem M and Kapur J, Primary Cerebral Mucormycosis: A case report and literature review. The Neurologist (2000) 6:232-237.

20) Borris DJ, Bertram EH and Kapur J, Ketamine controls prolonged status epilepticus. Epilepsy Research (2000) 42:117-122.

21) Kearney JA, Plummer NW, Smith MR, Kapur J, Cummins TR, Waxman SG, Goldin AL, and Meisler MH, A gain-of-function mutation in the sodium channel gene *Scn2a* results in seizures and behavioral abnormalities. Neuroscience (2001) 102: 307-317.

22) Mtchedlishvili Z, Bertram EH and Kapur J, Diminished allopregnanolone enhancement of $GABA_A$ receptor currents a rat model of chronic temporal lobe epilepsy. Journal of Physiology (2001) 537: 453-465.

23) Kelly K M, Kharlamov A, Hentosz TM, Kharlamova EA, Williamson JM, Bertram E H, Kapur J and Armstrong D M, Photothrombotic brain infarction results in seizure activity in aging Fischer 344 and Sprague Dawley rat. Epilepsy Research (2001) 47: 189-203.

24) Mtchedlishvili Z, Harrison MB and Kapur J Increased neurosteroid sensitivity of hippocampal $GABA_A$ receptors during postnatal development. Neuroscience, (2003) 118:655-666.

25) Choudhury-Mukherjee I.; Schenck HA; Cechova S; Pajewski TN; Kapur J; Ellena J; Cafiso DS; Brown ML Design, synthesis, and evaluation of analogues of 3,3,3-trifluoro-2-hydroxy-2-phenyl-propionamide as orally available general anesthetics. Journal of Medicinal Chemistry (2003) 46:2494-2501.

26) Mtchedlishvili Z and Kapur J, A presynaptic action of the neurosteroid pregnenolone sulfate on GABAergic synaptic transmission. Molecular Pharmacology (2003) 64:857-864.

27) Mangan PS and Kapur J, Factors underlying bursting behavior in a network of cultured hippocampal neurons exposed to zero magnesium. Journal of Neurophysiology (2004) 91: 946-957.

28) Williamson J, Mtchedlishvili Z and Kapur J, Characterization of the convulsant action of pregnenolone sulfate. Neuropharmacology, (2004) 46: 856-864.

29) Yen W, Williamson J, Bertram EH and Kapur J A comparison of 3 NMDA receptor antagonists in the treatment of prolonged status epilepticus. Epilepsy Research (2004) 59: 43-50.

30) Swanwick CC, Harrison MB and Kapur J, Synaptic and extrasynaptic localization of brain-derived neurotrophic factor and the tyrosine kinase B receptor in cultured hippocampal neurons. Journal of Comparative Neurology (2004) 478:405-417.

31) Sun C, Sieghart W and Kapur J, Distribution of α1, α4, γ2, and δ subunits of $GABA_A$ receptors in hippocampal granule cells. Brain Research (2004), 1029 (2): 207-216.

32) Mangan PS*, Sun*C, Carpenter M, Goodkin HP, Sieghart W and Kapur J Cultured hippocampal pyramidal neurons express two kinds of $GABA_A$ receptors. Molecular Pharmacology (2005) 67: 775-788.

33) Goodkin HP, Yeh J-L, and Kapur J Status epilepticus increases the intracellular accumulation of $GABA_A$ receptors. Journal of Neuroscience (2005) 25: 5511-5520.

34) Mtchedlishvili Z and Kapur J High affinity slowly desensitizing $GABA_A$ receptors mediate tonic inhibition in dentate granule cells. Molecular Pharmacology (2006) 69: 564-575.

35) Swanwick CC, Murthy NR; Mtchedlishvili Z; Sieghart W and Kapur, J Development of GABAergic synapses in cultured hippocampal neurons. Journal of Comparative Neurology (2006) 495:497-510.

36) Swanwick CC, Murthy NR, and Kapur J Activity-dependent scaling of GABAergic synapse strength is regulated by brain-derived neurotrophic factor. Molecular and Cellular Neuroscience (2006) 31: 481-92.

37) Trotter SA, Kapur J, Anzivino MJ and Lee KS GABAergic Synaptic inhibition is reduced prior to seizure onset in a genetic model of cortical malformation. Journal of Neuroscience (2006) 26: 10756-67.

38) Sun C, Mtchedlishvili, Z; Bertram E, Erisir A and Kapur J Selective loss of dentate hilar interneurons contributes to reduced synaptic inhibition of granule cells in an electrical stimulation-based animal model of temporal lobe epilepsy. Journal of Comparative Neurology (2007) 500: 876-93.

39) Jones PJ, Wang Y, Smith MD, Hargus NJ, Eidam HS, White HS, Kapur J, Brown ML and Patel MK Hydroxyamide analogs of propofol exhibit state-dependent block of sodium channels in hippocampal neurons: implications for anticonvulsant activity. Journal of Pharmacology and Experimental Therapeutics (2007) 320:828-36.

40) Sun C, Mtchedlishvilli Z, Erisir A and Kapur J Diminished neurosteroid sensitivity of synaptic inhibition and altered location of the α 4 subunit of GABA-A receptors in an animal model of epilepsy. Journal of Neuroscience (2007) 27: 12641-12650.

41) Rajasekaran K, Kapur J and Bertram EH Alterations in GABA-A receptor mediated inhibition in adjacent dorsal midline thalamic nuclei in a rat model of chronic limbic epilepsy. Journal of Neurophysiology (2007) 98:2501-2508.

42) Martin BS and Kapur J A combination of ketamine and diazepam synergistically controls refractory status epilepticus induced by cholinergic stimulation. Epilepsia (2008) 49: 248-255.

43) Goodkin HP, Joshi S, Mtchedlishvili Z, Brar J, and Kapur J Subunit-specific trafficking of $GABA_A$ Receptors during status epilepticus. Journal of Neuroscience (2008) 28: 2527-2538.

44) Joshi S, and Kapur J. Slow intracellular accumulation of $GABA_A$ receptor δ subunit is modulated by BDNF. Neuroscience (2009) 164:507-19.

45) Zanelli S, Naylor M and Kapur J. Nitric Oxide alters GABAergic synaptic transmission in cultured hippocampal neurons. Brain Research (2009) 1297:23-31.

46) Chen X, Shu S, Schwartz L, Sun C, Kapur J and Bayliss D Homeostatic regulation of synaptic excitability: tonic GABA-A receptor currents replace Ih in cortical pyramidal neurons of HCN1 knockout mice. Journal of Neuroscience (2010) 30: 2611-22.

47) Kozhemyakin M, Rajasekharan K and Kapur J Cholinesterase inhibition enhances glutamatergic synaptic transmission. Journal of Neurophysiology (2010) 103: 1748-1757.

48) Lawrence C, Martin BS, Sun C, Williamson J and Kapur J Endogenous neurosteroid synthesis modulates seizure frequency. Annals of Neurology (2010) 67: 689-693.

49) Rajasekaran K, Joshi S, Sun C, Mtchedlishvili Z and Kapur J Receptors with low affinity for neurosteroids and GABA contribute to tonic inhibition of granule cells in epileptic animals. Neurobiology of Disease (2010) 40:490-501.

50) Du G, Chen X, Todorovic MS, Shu S, Kapur J, Bayliss DA TASK channel deletion reduces sensitivity to local anesthetic-induced seizures. Anesthesiology (2011) 115:1003-1011.

51) Joshi S, Sun C and Kapur J Generation and characterization of a mouse monoclonal antibody against the γ2 subunit of GABA-A receptors. Hybridoma (2011) 30:537-42.

52) Rannals M and Kapur J, Homeostatic strengthening of inhibitory synapses is mediated by the accumulation of GAB-A receptors. Journal of Neuroscience (2011) 31: 701-12.

53) Rusin CG, Johnson SE, Kapur J and Hudson J. Engineering the synchronization of neuron action potentials using global time-delayed feedback stimulation. Physical Review E (2011). 84: 066202.

54) Rajasekaran K, Todorovic M, Kapur J. Calcium-permeable AMPA receptors are expressed in a rodent model of status epilepticus. Annals of Neurology (2012) 72: 91-102.

55) Todorovic M, Cowan ML, Balint C and Kapur J Characterization of status epilepticus induced by two organophosphates. Epilepsy Research (2012) 101:268-76.

56) Sun J and Kapur J M-type potassium channels modulate Schaffer collateral CA1 glutamatergic synaptic transmission. Journal of Physiology (2012) 590:3953-64.

57) Kozhemyakin M, Rajasekaran K, Todorovic M, Kowalski S, Balint C and Kapur J Somatostatin type II receptor activation inhibits glutamate release and prevents status epilepticus. Neurobiology of Disease (2013) 54:94-104.

58) Joshi S and Kapur J NMDA receptor activation down-regulates expression of the δ subunit-containing $GABA_A$ receptors in cultured hippocampal neurons. Molecular Pharmacology (2013) 84:1-11.

59) Joshi S Keith KJ, Ilyas A and Kapur J GABA-A receptor membrane insertion rates are specified by their subunit composition. Cellular and Molecular Neuroscience (2013) 56C:201-211

60) Sun C, Sun J, Erisir A and Kapur J Loss of cholecystokinin-containing terminals in temporal lobe epilepsy. Neurobiology of Disease (2014) 62:44-55.

61) Dey D, Eckle VS, Vitko I, Sullivan KA, Lasiecka ZM, Winckler B, Stornetta RL, Williamson JM, Kapur J, Perez-Reyes E. A potassium leak channel silences hyperactive neurons and ameliorates status epilepticus (2014) Epilepsia. 55: 203-13.

62) Zanelli S, Goodkin HP, Kowalski S, Kapur J. Impact of transient acute hypoxia on the developing mouse EEG.(2014) Neurobiology of Disease 68:37-46.

63) Johnson S, Hudson J and Kapur J. Synchronization of action potentials during low magnesium induced bursting. (2015) Journal of Neurophysiology 113:2461-70.

64) Wang G, Bochorishvili G, Chen Y, Salvati KA, Zhang P, Dubel SJ, Perez-Reyes E, Snutch TP, Stornetta RL, Deisseroth K, Erisir A, Todorovic SM, Luo JH, Kapur J, Beenhakker MP,

Zhu JJ. CaV3.2 calcium channels control NMDA receptor-mediated transmission: a new mechanism for absence epilepsy. Genes Dev. (2015); 14:1535-51.

65) Zanelli SA, Rajasekaran K, Grosenbaugh DK, Kapur J. Increased excitability and excitatory synaptic transmission during in vitro ischemia in the neonatal mouse hippocampus. Neuroscience. (2015) 310:279-89.

66) Joshi S, Rajasekaran K, Williamson J, Kapur J. Neurosteroid-sensitive δ-GABA(A) receptors: A role in epileptogenesis? Epilepsia. (2017) 58:494-504.

67) Joshi S, Rajasekaran K, Sun H, Williamson J, Kapur J. Enhanced AMPA receptor-mediated neurotransmission on CA1 pyramidal neurons during status epilepticus. Neurobiology of Disease (2017) 103:45-53.

68) Zhang T, Todorovic MS, Williamson J and Kapur J. Flupirtine and diazepam combination terminates established status epilepticus: results in three rodent models. Annals of Clinical And Translational Neurology. (2017) 12:888-896.

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<u>Peer –reviewed Reviews, Commentaries and other items listed in pubmed</u>

1) Kapur J Status epilepticus and seizures. Current opinion in critical care (1998) 4:83-88.

2) Kapur J Status epilepticus in epileptogenesis. Current Opinion in Neurology (1999) 12:191-195.

3) Macdonald RL and Kapur J Pharmacological properties of recombinant and hippocampal dentate granule cell GABAA receptors. Advances in Neurology (1999)79:979-90.

4) Kapur J Hippocampal neurons express GABAA receptors insensitive to diazepam in hyperexcitable conditions. Epilepsia; (2000) 41: S86-S89.

5) Kapur J Prehospital treatment of status epilepticus with benzodiazepines is effective and safe. Epilepsy Currents (2002) 2: 121-4.

6) Kapur J Sodium channel mutations in GEFS+ produce persistent inward current. Epilepsy Currents (2002) 2: 149-150.

7) Goodkin HP and Kapur J Responsiveness of status epilepticus to treatment with diazepam decreases rapidly as seizure duration increases Epilepsy Currents (2002) 3: 11-12.

8) Kapur J Role of Neuronal loss in the pathogenesis of recurrent spontaneous seizures. Epilepsy Currents (2003) 3: 166-167.

9) Kapur J Role of GABAA receptors in the pathogenesis of generalized epilepsies. Experimental Neurology, (2003) 184: 1-2.

10) Kapur J Dormant basket cell hypothesis revisited…….again. Epilepsy Currents (2003) 3: 225-226.

11) Swanwick CC, and Kapur J Role of Brain-Derived Neurotrophic Factor in Catamenial Epilepsy Epilepsy Currents (2004) 4: 154-155.

12) Swanwick CC, and Kapur J Is the tyrosine kinase B receptor a target for preventing epilepsy? (2005) Epilepsy currents 5:7-10.

13) Kapur J and Trotter S Homeostatic plasticity hypothesis and mechanisms of neocortical epilepsies. Epilepsy Currents (2005) 5:133-135.

14) Kapur J Disordered migration of interneurons within focal cortical dysplasia. Epilepsy Currents (2006) 6: 96-98.

15) Kapur J Is mesial temporal sclerosis a necessary component of temporal lobe epilepsy? Epilepsy Currents (2006) 6: 1-2.

16) Kapur J Is epilepsy a disease of synaptic transmission. Epilepsy Currents (2008) 8: 139-141.

17) Goodkin HP, Sun C, Yeh J, Mangan P and Kapur J GABA(A) receptor internalization during seizures. Epilepsia (2007) 48 (Supplement 5): 109-113.

18) Goodkin HP and J Kapur The impact of diazepam's discovery on the treatment and understanding of status epilepticus Epilepsia. (2009) 50:2011-8.

19) Kapur J Galanin Receptors Modulate Seizures. Epilepsy Currents (2011) 11: 125–127.

20) Joshi S, Rajasekaran K, Kapur J. GABAergic transmission in temporal lobe epilepsy: The role of neurosteroids. Exp Neurol. 2011 Nov 4. [Epub ahead ofprint].

21) Kapur J Emerging role of pannexins in seizures and status epilepticus. Epilepsy Currents (2012) 12:113-4.

22) Berkovic SF, Kapur J Are myotonia and epilepsy linked by a chloride channel? Neurology 2013 80:1074-5.

23) Bleck T, Cock H, Chamberlain J, Cloyd J, Connor J, Elm J, Fountain N, Jones E, Lowenstein D, Shinnar S, Silbergleit R, Treiman D, Trinka E, Kapur J. The established status epilepticus trial 2013. Epilepsia. (2013) 6:89-92.

24) Rajasekaran K, Joshi S, Kozhemyakin M, Todorovic MS, Kowalski S, Balint C,Kapur J. Receptor trafficking hypothesis revisited: Plasticity of AMPA receptors during established status epilepticus. Epilepsia. (2013) 54 Suppl 6:14-6.

25) 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.

26) Schomer AC, Kapur J. The SAMUKeppra study in prehospital status epilepticus: lessons for future study. Ann Transl Med. 2016 4:468

27) Dworetzky BA, Kapur J. Gaining perspective on SUDEP: The new guideline. Neurology. 2017 88:1598-1599.

28) Wychowski T, Kapur J. Isocitrate dehydrogenase mutations: A biomarker for glioma-related excitability and seizures. Neurology. (2017) 88:1782-1783.

29) Joshi S, Kapur J. Neurosteroid regulation of GABA(A) receptors: A role in catamenial epilepsy. Brain Res. 2019 Jan 15;1703:31-40..

30) Kapur J. Role of NMDA receptors in the pathophysiology and treatment of status epilepticus. Epilepsia Open. 2018 Nov 2;3(Suppl 2):165-168.

31) Wykes RC, Khoo HM, Caciagli L, Blumenfeld H, Golshani P, Kapur J, Stern JM, Bernasconi A, Dedeurwaerdere S, Bernasconi N. WONOEP appraisal: Network concept from an imaging perspective. . Epilepsia. 2019 60:1293-1305

32) Williamson J, Singh T, Kapur J. Neurobiology of organophosphate-induced seizures. Epilepsy Behav. 2019 Aug 6:106426. doi: 10.1016/j.yebeh.2019.07.027.Epub ahead of print] Review. PubMed PMID: 31399343.

33) Brodovskaya A, Kapur J. Circuits generating secondarily generalized seizures. Epilepsy Behav. 2019 Aug 17:106474. doi: 10.1016/j.yebeh.2019.106474. [Epub ahead Review. PubMed PMID: 31431400.

34) Cock HR, Coles LD, Elm J, et al. Lessons from the Established Status Epilepticus Treatment Trial. Epilepsy Behav. 2019;101(Pt B):106296. doi:10.1016/j.yebeh.2019.04.049

Book Chapters

1) Kapur J, Macdonald R L Status Epilepticus: A Proposed Pathophysiology, in Treatment of Epilepsy (1995) Ch 18:258-268 Editors Shorvon, Fish, Dreifuss, Thomas.
2) Quigg M, Bertram EH and Kapur J An unusual application of epilepsy surgery. In 110 Puzzling Cases of Epilepsy. (2002) Editors Schmidt D and Schachter SC Case 65: page 250-253.
3) Mtchedlishvili Z and Kapur J Role of neurosteroids in epilepsy in *Neurosteroid Effects in the Central Nervous System: The Role of the GABA-A Receptor*, (2003) Chapter 14, 305-315 Editor Smith SS, CRC press.
4) Kapur J and Bertram E. Drug resistance in epilepsy and status epilepticus. *Epilepsy: Scientific Foundations of Clinical Practice.* (2003) Chapter 3, 21-40 Editors, Rho JM, Sankar R, Cavazos J, Marcel Dekker, New York, NY
5) Kapur J Pathophysiolgy of Status Epilepticus. *Nonconvulsive Status Epilepticus* (2009) Chapter 7, 81-94 Editors, Peter W Kaplan, Frank W Drislane Demos medical Publishing.
6) Rajasekaran K, Mtchedlishvili Z, Sun C, and Kapur J Neurosteroid Modulation of GABAA Receptor-Mediated Synaptic Transmission in an Animal Model of Temporal Lobe Epilepsy In**:** Philip A. Schwartzkroin, editor Encyclopedia of Basic Epilepsy Research, Vol 1. Oxford: Academic Press; 2009. pp. 513-519**.**
7) Kapur J Pathophysiology of Status Epilepticus. In: Philip A. Schwartzkroin editor Encyclopedia of Basic Epilepsy Research, Vol. 1. Oxford: AcademicPress; 2009. pp. 304-308.
8) Trotter S A, Fitzgerald M P, Kapur J and Lee K S The Tish Rat: An Animal Model of Cortical Malformation in the Study of Epilepsy. In: Philip A.Schwartzkroin, editor Encyclopedia of Basic Epilepsy Research, Vol. 1. Oxford: Academic Press; 2009. pp. 214-219.
9) $GABA_A$ Receptor Plasticity During Status Epilepticus. Joshi S, Kapur J. (2012) In: Noebels JL, Avoli M, Rogawski MA, Olsen RW, Delgado-Escueta AV, editors. Jasper's Basic Mechanisms of the Epilepsies [Internet]. 4th edition.

INVITED LECTURES AND SYMPOSIA

National & International

1996	Regional Meritt Putnam Symposium: "Basic Mechanisms of Status Epilepticus" Boston, Massachusetts
1996-2001	30-35th Annual Meeting of the American Clinical Neurophysiology Society, Basic Neurophysiology Course, "Pathophysiology of Epilepsy"
1996	First International Conference on Epilepsy: Advances in Understanding and Therapeutic Development, "Pharmacology of Hippocampal Dentate Granule Cell $GABA_A$ Receptors", Orlando, Florida.

1997	32nd Annual meeting of the American Epilepsy Society: Investigators' workshop, "Role of zinc in temporal lobe epilepsy".
1998	Annual meeting of the American Epilepsy Society: Moderator for platform session: status epilepticus.
1998	Fifth Workshop on Neurobiology of Epilepsy, Cesky Krumlov, Czech Republic
1999	Joint seminar, Neuroscience Program, and Department of Neurology, Medical College of Ohio, Toledo, OH"$GABA_A$ receptor plasticity in temporal lobe epilepsy"
1999	Grand Rounds, Department of Neurology, Georgetown University, Washington DC "Status Epilepticus"
2000	Grand Rounds, Department of Neurology, Henry Ford Hospital, Detroit, MI "Status Epilepticus"
2001	Sixth Workshop on Neurobiology of Epilepsy, Iguazu Falls, Brazil
2001	"Ion channels in pathogenesis and treatment of epilepsy" KM Welch Lecture, Henry Ford Hospital, Dearborn, MI
2003	Epicenter, University of California, Irvine, CA, "Role of GABA-mediated inhibition in status epilepticus".
2003	Grand Rounds, Department of Neurology, University of California, Irvine, CA, "Status epilepticus".
2003	Grand Rounds, Department of Neurology, Vanderbilt University, Nashville, TN.
2003	Grand Rounds, Department of Neurology, Emory University, Atlanta, GA
2003	Epilepsy Research Seminar, Children's hospital of Pennsylvania, University of Pennsylvania, Philadelphia, PA
2004	"Epilepsy in children: neurobiological, clinical and therapeutic approach" International League Against Epilepsy Summer Course, Venice International University, San Servolo, Venice, Italy.
2005	Eighth Workshop on Neurobiology of Epilepsy, Villiers-le-Mahieu, France
2005	Annual Meeting of the American Epilepsy Society, Washington D.C. Hot Topics Symposium: Mechanisms of Drug Resistance,
2005	Investigator's Workshop: Animal Models of Catamenial Epilepsy, Annual Meeting of the American Epilepsy Society, Washington D.C.
2006	Grand rounds, Department of Neurosurgery, Cleveland Clinic Foundation, Cleveland OH
2006	Grand rounds, Epilepsy section, Department of Neurology, Cleveland Clinic Foundation, Cleveland OH
2006	Symposium "AEDs: Translating Recent Data Into Clinical Applications" New York University, New York, NY.
2006	34th Annual Hans Berger symposium, Virginia Commonwealth University, Richmond, VA.
2006	Gordon research Conference, Mechanisms of Epilepsy & Neuronal Synchronization Colby College Waterville, ME
2006	Current Trends in Epilepsy: An international symposium, New Delhi, India.
2007	1st London Colloquium on Status Epilepticus: Receptor mechanisms in status epilepticus.
2007	1st Annual CounterACT Network Research Symposium, NIH: Mechanisms and treatment of nerve agent induced seizures.
2008	Grand Rounds, Allegheny General Hospital, "Status Epilepticus"
2008	2nd Annual CounterACT Network Research Symposium, NIH
2008	2nd Center for Integrative Neuroscience and Neuroengineering Research (CINNR) Epilepsy Conference, Epilepsy Synchronizing research, Chicago, IL
2008	Biomedical Science Seminar series, Univ. of South Carolina School of Medicine, Columbia, SC "Seizures and Plasticity of $GABA_A$ receptors"

2008	"$GABA_A$ receptor trafficking in temporal lobe epilepsy", Gordon Research Conference on "Mechanisms of Epilepsy and Neuronal Synchronization".
2008	fMRI versus Wada test: debate Annual meeting of the Indian Epilepsy Society, New Delhi, India
2009	Grand Rounds, Department of Neurology, Albert Einstein College of Medicine, "Are seizures predictable? A biological approach to the problem"
2009	Merritt-Putnam symposium, International Epilepsy Congress of the International League Against Epilepsy, Budapest, Hungary "Acute molecular and functional changes in neurotransmission during early status epilepticus".
2009	Mechanism-based therapy of status epilepticus, Workshop on Neurobiology of Epilepsy, Pecs, Hungary
2009-	Annual Meeting of the American Neurological Association, Baltimore MD, "Mentoring Clinician Investigators"
2009	Synaptic Inhibition in Health and Disease, Satellite symposium to Annual meeting of Society for Neuroscience, Chicago, "GABA-A receptor trafficking in Epilepsy".
2010	Status Epilepticus and Management of Seizures in the ICU, Epilepsy Update, Mumbai, India
2010	Co-Morbidities in Epilepsy: Current Issues in Management, Epilepsy Update, Mumbai, India
2010	Are Seizures Predictable? Answers from Clinical Neurophysiology and Biology. Hans Berger Lecture: 38th Annual Hans Berger Symposium, Virginia Commonwealth University.
2010	Can Deep Brain Stimulation Treat Seizures? 38th Annual Hans Berger Symposium, Virginia Commonwealth University.
2010-	Annual Meeting of the American Neurological Association, Baltimore MD, "Transition from K award to RO1"
2011	Virginia Neurological Society, Annual Meeting, "Status Epilepticus".
2011	Clinical Grand Rounds, National Institute of Neurological Diseases and Stroke (NINDS) " Mechanism based Therapy of Status Epilepticus"
2011	Teaching Session, International Epilepsy Congress, Rome, "Plasticity of ion channels and receptors during epileptogenesis".
2009-2011	Becoming an Independent RO1 Funded Investigator: Strategies for Success… from Basic Science to Clinical Trials: NINDS career development symposium at the annual meeting of American Neurological Association.
2011	Annual meeting of the American Epilepsy Society, Presidential Symposium: Opportunities From Shifting Research Paradigms
2011	Annual meeting of the American Epilepsy Society: Neuroscience Special Interest Group: Homeostatic plasticity in epilepsy.
2011	Annual meeting of the American Epilepsy Society: Professional development opportunities at AES.
2012	Grand Rounds, Department of Neurology, Johns Hopkins University, Baltimore, MD, "Status epilepticus"
2012	American Academy of Neurology, Annual meeting: Epilepsy Integrated Neuroscience: Recent Advances in Basic Science with Clinical Relevance.
2012	Grand Rounds, Department of Neurology, Mayo Clinic, Rochester, MN "Established Status Epilepticus Treatment Trial"
2012	Judith Hoyer Lecture, American Epilepsy Society, Annual meeting, San Diego, CA.

2012	Annual meeting of the Mexican Chapter of International League Against Epilepsy, Durango City Mexico “GABA systems and epilepsy: Basic and Clinical aspects”
2013	Grand Rounds, Neurology, Wayne State University, Detroit, MI.
2013	4th London-Innsbruck Colloquium on status epilepticus and acute seizures, Salzburg, Austria “Receptor trafficking hypothesis – revisited” and **“**Established Status Epilepticus Trial”.
2014	Grand rounds, Neurology, University of Michigan, Ann Arbor, MI Mechanisms of Catamenial epilepsy.
2015	Annual meeting of the Chilean Chapter of the International League Against Epilepsy, Santiago, Chile, 3 lectures and a workshop on status epilepticus and seizure emergencies.
2015	31st International Epilepsy Congress, Istanbul, Turkey, “Basic mechanisms of Status Epilepticus”.
2015	31st International Epilepsy Congress, Istanbul, Turkey, Organizer “Leadership Training
2016	Grand Rounds, University of Kentucky, Lexington, Mechanisms and treatment of status epilepticus.
2016	Grand Rounds, George Washington University, Washington, DC, Mechanisms and treatment of status epilepticus.
2016	Annual meeting of the American Academy of Neurology (AAN), Vancouver, Canada, “Mechanisms and treatment of status epilepticus”, Emergency Neurology session, Moderator Laurie Gutman.
2017	Swebilius Lecture and Award, Yale University
2017	London-Innsbruck Colloquium on status epilepticus and acute seizures, Salzburg, Austria
2017	Grand Rounds, University of Maryland
2018	CURE foundation Lecture. University of Colorado, Denver
2018	Molecular and Integrative Physiology, University of Illinois, Urbana-Champaign,
2018	Center for Translational Neuroscience, Distinguished Lecture Series: University of Arkansas, Little Rock
2018	Grand Rounds, Neurology, University of Kansas, Kansas City