TALLIE Z. BARAM, PhD, MD

CURRICULUM VITAE

Present Academic Title and Affiliations:

July 1995-	Professor, Pediatrics, Anatomy / Neurobiology and Neurology University of California-Irvine (UCI)
	Danette Shepard Professor of Neurological Sciences, UCI
2002-	Founder and Director, UCI Epilepsy Research Center
2009-	Member, Institute for Memory Impairments and Neurological Disorders
2010-	Professor, Physiology and Biophysics, UCI
2011-	Fellow, Center for the Neurobiology of Learning and Memory (CNLM)
2012	Professor (above scale), Pediatrics, Anatomy / Neurobiology, Neurology, UCI
2013-	Director, Conte Center @ UCI

Present Clinical Appointments:

July 1995-	Physician, Division of Child Neurology, Pediatrics, UCI Medical Center	
October 2000-	Scientific Director, Comprehensive Epilepsy Program, UCI	
Address:	Depts. Pediatrics and Anatomy / Neurobiology UCI Medical Sciences I, ZOT 4475 Irvine, CA 92697-4475	
Telephone: Fax:	949.824.1131 949.824.1106	
Board Certification: 1987	American Board of Psychiatry and Neurology, special skill in Child Neurology,	
	American Board of Pediatrics, May 1988	
Licensure:	California Medical License	

Personal data:

Citizenship:United States of AmericaMarital Status:Married (Craig Paul LaFrance)

Education and Professional Experience:

- 1970-1973 BSc, Modern Biology, Tel-Aviv University, Israel
- 1973-1978 **PhD**, Dept. Biodynamics, Weizmann Institute of Science, Rehovot, Israel. Thesis: "Mechanisms of the Neural Control of the Release and Fate of Gonadotropin-Releasing Hormone", Advisor: Y. Koch
- 1978-1980 **MD**, University of Miami School of Medicine, PhD to MD program

Postgraduate Training:

- 1980-1982 Baylor College of Medicine; Pediatrics Residency, Houston, TX; (Ralph Feigin, MD, Director)
- 1982-1985 Baylor College of Medicine; Child Neurology Fellowship, Houston, TX; (Marvin A. Fishman, MD, Director)

Previous Academic and Clinical Appointments:

- 2010-2013 Physician, Children's Hospital of Orange County (CHOC)
- 1995-2000 Director, Childhood Epilepsy Program, UCI
- 1992-1995 Associate Professor, Neurology and Pediatrics, University of Southern California, Los Angeles, CA; Attending Physician, Children's Hospital Los Angeles
- 1987-1992 Assistant Professor, Neurology and Pediatrics, University of Southern California, Los Angeles, CA; Attending Physician, Division of Neurology, Children's Hospital Los Angeles
- 1985-1987 Assistant Professor and Attending Physician, Neurology, Neuro-Oncology & Pediatrics, University of Texas (& MD Anderson Cancer Center), Houston, TX

Honors and Awards (reverse chronology):

- 2017 CURE Lectureship, University of Maryland, Baltimore
- 2017 Einstein Translational Medicine Lecture, Albert Einstein School of Medicine, NY
- 2015 Elected member, American College of Neuropsychopharmacology
- 2013 Bernard Sachs Distinguished Award for Research, Child Neurology Society
- 2012 Soriano Lectureship Award, American Neurological Association
- 2011 Chair, NIH-Developmental Brain Disorders study section, 2011-2013
- 2010 Outstanding Mentor Award, University of California Emeriti Association

- 2010- Chair, Board of Trustees, Lennox and Lombroso Research and Education Trust of the American Epilepsy Society
- 2009 American Society of Pharmacology and Experimental Therapeutics/ International League Against Epilepsy (ASPET-ILAE) International Award for Epilepsy Research
- 2006 National Institute of Health, Javits Neuroscience Merit Award
- 2005 American Epilepsy Society Research Recognition Award (the premier worldwide prize in Epilepsy Research)
- 2004 American Epilepsy Society, Executive Board member elected, 2004- 2006
- 2003 American Epilepsy Society, Research Initiative Award
- 1999 Athalie Clarke Outstanding Research Award, University of California-Irvine
- 1995 Endowed Chair, Danette Shepard Professor in Neurological Sciences
- 1994 Innovative Clinical Research Award, University of Southern California
- 1991 Epilepsy Foundation of America, Young Investigator Award
- 1988 NIH NINDS Clinical Investigator Development Award, 1988-1993
- 1978 Kennedy Memorial Award (Highest Weizmann Institute PhD prize, including funds for postdoctoral fellowship).
- 1975 Haim Weizmann Fellowship, 1975-1980
- 1976 Bloom fellowship for life science doctoral studies, 1976-1977

1977 Short-term research grant (c J. Axelrod, NIH), European Molecular Biology Organization (EMBO)

Clinical honors:

Best Doctors in America, 2009, 2010; 'Best Doctors in Orange County', 2009

Management and Administration:

Executive Board, Hewitt Foundation for Biomedical Research 2015-Director, Conte Center on Brain Programming in Adolescent Vulnerabilities, 2013-Chair, Board of Trustees, Lennox and Lombroso Research Trust, American Epilepsy Society, 2010-Executive Committee, Strategic Plan Implementation, UCI School of Medicine, Nov 2010-2015 Steering Committee, Strategic Planning Initiative, UCI School of Medicine, 2010 Philanthropy course- attendee, UCI School of Medicine, 2010 Dean's Financial Advisory Council, UCI School of Medicine, 2009 Dean's Advocacy Advisory Group, UCI School of Medicine, 2009 Dean's Research Council, UCI School of Medicine, October 2007UCI School of Medicine Leadership Retreat, Vanderbilt, Nashville, July 2006

Executive Committee, member, UCI School of Medicine, June 2006-2007

Chair, UCI College of Medicine Vision 2010 Committee (Strategic Planning), 2004-2006

- Director and PI, NIH Multidisciplinary postdoctoral research training grant (T-32) on Epilepsy: 13 laboratories in five departments. July 2003-2008; renewed 2009-2014; 2014-
- Chair, Academic Resource Advisory Committee (recruitments & promotions); UCI School of Medicine, 2000-2004

Director, UC-system funded Multi-Investigator Biotechnology oriented Training / Research grant centered on Developmental Epilepsies: 1998- 2000 (6 investigators, 5 pre & postdoc positions)

Director, Childhood Epilepsy Program, UCI, August 1995-October 2000

- Director, NIH-funded Research Training Program for medical students, UCI, 1997-2002 (over 60 investigators, 18 positions)
- American Association of Medical Colleges: Leadership Skills for Senior Women in Medicine. Intensive Seminar, Washington D.C., June 28-July 1, 1996

Federal & National Boards and Committees:

NIH NIMH member, Study Section for Conte Center Review, 2013, 2015, 2016

NIH CSR special emphasis panel, BDCN R(02), June 2016

Chair, NIH NIMH P50 Conte Center Study Section, November 2015

NIH CSR special emphasis panel, BDCN N(02), May 2015

Reviewer, Dept of Defense/CDMRP Peer Reviewed Medical Research Program, preapplications, 2014 Chair, NIH CSR Developmental Brain Disorders (DBD) study section, October 2011-2013

NIH NINDS NSADA K12 Advisory Committee, external advisor, D. Ferriero, PI, 2007-NIH DBD study section member 2010-2014 Chair, NIH NINDS special review group ZRG1 EMNR-N (51), March 2010 NIH NINDS special review groups: ZNS1SRB-M (51); ZRG BBBP-J (02), 2007 NIH NNB study section member (ad hoc) 2006, 2007, 2009, 2010 NIH DBD study section member (ad hoc) 2005-2010 NINDS and AES: Benchmarks in Epilepsy Research Steering Committee, 2002- 2008 NIH NINDS Training grant study section, (NST), member, 1998- 2002 Chair NIH NINDS NST-special emphasis panel, March 2000 NIH NINDS Special Emphasis Panelist & site visitor, May 1999 NIH NINDS program project study section, ad hoc reviewer, October 1997 NIH NINDS Epilepsy Branch External Advisory Panel Novel AEDs, 1996

American Epilepsy Society (AES):

Chair, Board of Trustees, Lennox & Lombroso Trust for Research, Education 2010-2016 American Epilepsy Society (AES) Investigators' workshop committee 2009-2012

AES Nominations Committee, 2011-2014

AES Service Award Committee, Chair, 2007

AES Research Initiative Committee, 2006-2008

AES Awards Committee, 2006-2008

AES Executive Board, elected, 2004-2006

AES Postgraduate Training Committee, 2003-

AES Research and Training Committee, member 2002-2005

AES Pediatric Epilepsy Research Consortium scientific grant reviewer, 2002-2005

AES Antiepileptic Drug Development Task Force, April 2001-2003

AES Chair, Science Education Subcommittee, 2000-2004

AES Co-Director, special interest group: Children's hour, 1998-1999 AES Scientific Planning Committee, 1992-1993

Citizens United for Research in Epilepsy (CURE) Prevention of Acquired Epilepsies Award, review panel 2015-16

Chair, Pediatric Partnership for Epilepsy Research, Scientific Committee, 2006-2010

Epilepsy Foundation of America (EFA) study section, October 2012-

EFA Professional Advisory Board, member, July 2001-2010

EFA Research Council, 2005-2010

EFA, Professional Advisory Board- Research Grants; 1998

American Academy of Neurology, Dreifuss-Penry Epilepsy Award Committee, 2001-2007 American Neurological Assoc. (ANA), Membership Advisory Committee, Oct. 2007-2010

International League Against Epilepsy (ILAE) Pediatric Commission, member (Neurobiology commission liaison), 2006-2009

ILAE Education Commission, member 2011-2012

Child Neurology Society (CNS), Long-range Planning Committee, 2009-2012 CNS Symposia: 1994, 1997, 2001, 2004, 2009, 2012 CNS Research Strategies Committee, 1995-1997 CNS Scientific Selection Committee 1991-1993; 1997-1999 CNS Chair, Membership Committee, 1993-1995

Child Neurology Foundation (CNF) Scientific Award Selection Committee, 2006-2014

American Board of Psychiatry & Neurology, Invited Examiner 1992, 1993, 1994, 1997, 1999

Editorial Boards:

Associate Editor, Systems/Circuits section, Journal of Neuroscience, 2014-2017 Reviewing Editor, eNeuro, 2014-Neurobiology of Stress, 2014-Experimental Neurology, 2012-Associate Editor, Frontiers in Behavioral Neuroscience, 2010-2015 Annals of Neurology 2005-2015 Epilepsy Currents, 2006-2013 Journal of Molecular Neuroscience, 2002-Epilepsia, 2001-2005 Endocrinology, 1997-2001 Pediatric Neurology, 1996-2000

Reviewer: Science, PNAS, Nature, Nature Communications, Nature Reviews Neuroscience, Brain, J Neurosci, Molecular Psychiatry, Frontiers in Neuroendocrinology, Hippocampus, Cerebral Cortex, dozens of others

Involvement in International and National Peer Reviews:

Please see above for NIH, American Epilepsy Society and Epilepsy Foundation contributions Binational Israel science fund 2015-European Science Foundation, reviewer Wellcome Trust U.K. Science Foundation, ad hoc reviewer Israel Science Fund, Reviewer, 2011-European Commission on Neuroscience, consulting reviewer, 2010-German-Israeli Bi-national grants, ad hoc reviewer Irish Science Foundation, ad hoc reviewer Italian Telethon Research Foundation, ad hoc reviewer French Foundation for Epilepsy Research, Reviewing board Alberta Heritage Foundation for Medical Research (Canada), ad hoc reviewer, 2006 and 2009

Grant Support:

Active:

Note: Grants are listed from their year of onset. They have been competitively renewed successively since.

NIH NIMH P50 MH 096889 (Conte center; PI: Baram) Fragmented early life environment and emotional / cognitive vulnerabilities	2013 - 2018
NIH NINDS NS 35439 (R01, PI: Baram) Epileptogenesis following FSE: mechanisms, biomarkers, prevention (Senator Javits Career Merit award, R37; 2006-2014)	1997 - 2019
NIH NIMH MH 73136 (R01, PI: Baram) Effects of Early-life experience: Role of CRH	1999 - 2021
NIH NINDS T32 NS 45540 (PI: Baram) Postdoctoral Research Fellowship focused on Epilepsy One of only two such grants in the U.S.	2003 - 2019
NIH PPG NS 45260 (P01, PI: Christine Gall, Project PI: Baram) BDNF and Spine-Related Disorders of Memory and Cognition Project 4 (Baram)	2011 - 2016
NIH NINDS NS 78279 (R01, Multiple PIs: Holmes & Baram) Cognitive deficits after experimental febrile seizures: neurobiology & biomarkers	2011 - 2017
Hewitt fellowship, Jessica Bolton, PhD, Sponsor: Baram	2015 - 2018
Mentor on funded active NIH grants for Trainees:	
NIH NINDS K08, Devin Binder, MD, PhD; Baram: Mentor NIH NINDS K23, Jack Lin, MD; Baram: Mentor NIH NINDS K08, Daniela Bota, MD, PhD; Baram: Mentor NIH-CTSA KI2, Yama Akbari, MD, PhD; Baram: Mentor	2007 - 2011 2009 - 2014 2011 - 2016 2014 - 2016
Previous funding (1995-, NIH and other):	
NIH NINDS NS 28912 (R01, PI: Baram) CRH in stress-induced hippocampus neuroplasticity	1992 - 2015

NIH NINDS P20 NS 80185 (PI: McNamara, Baram, investigator) Prevention of Temporal Lobe Epilepsy	2012 – 2015
Hewitt fellowship, Gary Brennan, PhD, Sponsor: Baram	2012 - 2015
Hewitt fellowship, Pamela Maras, PhD, Sponsor: Baram	2010 - 2012
NIH PPG P01 NS 45260 (PI: Christine Gall, Project 4, PI: Baram) ARRA award; BDNF and Spine-Related Disorders of Memory	2009 - 2011
NIH NINDS, NS 35439 ARRA supplement (PI: Baram) Febrile seizure model: Neuronal injury and mechanisms	2009 - 2010
Hewitt fellowship, Courtney Rice, Sponsor: Baram	2009 - 2010
NIH NINDS NS049618-02 (R21) (Co-PIs: GL Holmes, Baram) MRI as a marker for Epileptogenesis	2004 - 2007
Epilepsy Foundation of America/ AES Postdoctoral Research Fellowship Title: Role of IL-1ß in the generation of febrile seizures and in their consequences. Role: Sponsor: Baram; PI: Celine Dubé, PhD	2003 - 2004
American Epilepsy Society Research Initiative Award (PI) Defining MRI changes as surrogate markers for epileptogenesis in the Febrile seizure m	2003 - 2004 Iodel.
Epilepsy Foundation of America/ American Epilepsy Foundation Mechanisms of febrile seizure induced changes in HCN expression. Role in epileptogen Role: Sponsor for Roland Bender, PhD	2001 - 2002 esis.
Pharmaceutical Research Institute (PRI, Johnson & Johnson) (PI) Can we prevent epilepsy? Role of Topiramate in preventing seizure-induced changes in the febrile seizure model.	2001 - 2002
NIH-NINDS Role: Co-PI: Baram, 5% effort; PI: I. Soltesz Electrophysiology of febrile seizures	1999 - 2002
Biotechnology oriented Research and Education Program (BREP) (PI) Developing New Biotechnology Targets in Developmental Epilepsies (Collaborative 6 lab research and training award).	1998 - 2000
Epilepsy Foundation- Student Research Award Role: Sponsor for Celine Dubé, PhD	1998 - 1999
NIH -T35GM/ AG08630 (PI: Baram) Research Training Grant for Medical Students at UCI	1997 - 2002
NIH NICHD, STTR (Investigator-led Technology Transfer Research) PI Which CRH receptors mediate CRH-induced seizures? Use of non-peptide CRH antago	1997 - 1998 mists.
Abbott Pharmaceuticals (Investigator: Baram)	1996 - 2000

Clinical Investigation of Tiagabine as an Antiepileptic in children

- a) Blinded study of efficacy, b) Open-label study of efficacy and side effects,c) Compassionate and adverse events

Markey Foundation Research Awards a) Do CRH antagonists prevent adrenalectomy-induced dentate gyrus cell death, b) Equipment grants, Postdoctoral Award for Dr. XX Yan	1996 - 1998
Innovative Research Institute Clinical Research Award (PI) CRH antagonists as anticonvulsants for Massive Infantile Spasms	1995 - 1996
NIH NINDS: NS K08 01307 Clinical Investigator Development Award Molecular mechanisms controlling CRH gene expression in the developing rat brain	1988 - 1993

Peer-reviewed publications 1997- 2017 (of >200)

Papers are grouped by topic, in reverse chronology.

Neurobiology of Stress, CRH, and Infantile Spasms

Bolton JL, Molet J, Ivy A, Baram TZ. (in press). New insights in early-life stress and behavioral outcomes. Current Opinion in **Behavioral Sciences**, 14. 2017

Singh-Taylor A, Molet J, Jiang S, Korosi A, Bolton JL, Noam Y, Simeone K, Cope J, Chen Y, Mortazavi A, Baram TZ. NRSF-dependent epigenetic mechanisms contribute to programming of stress-sensitive neurons by neonatal experience, promoting resilience. **Mol Psychiatry**. 2017. Impact Factor = 15.

Chen Y, Molet J, Lauterborn JC, Trieu BH, Bolton JL, Patterson KP, Gall CM, Lynch G, Baram TZ. Converging, synergistic actions of multiple stress hormones mediate enduring memory impairments after acute simultaneous stresses. **J Neurosci**, 2016. *subject of JNeurosci Journal Club

Molet J, Maras PM, Kinney-Lang E, Harris NG, Rashid F, Ivy AS, Solodkin A, Obenaus A, <u>Baram TZ</u>. MRI uncovers disrupted hippocampal microstructure that underlies memory impairments after early-life adversity. **Hippocampus**, 2016.

Molet J, Heins K, Zhuo X, Mei YT, Regev L, <u>Baram TZ</u>, Stern H. Fragmentation and high entropy of neonatal experience predict adolescent emotional outcome. **Transl Psychiatry**, 6:e702, 2016.

Chen Y, <u>Baram TZ</u>. Towards understanding how early-life stress re-programs cognitive and emotional brain networks. **Neuropsychopharmacology**, 41:197-206, 2016.

Chen Y, Molet J, Gunn BG, Ressler K, <u>Baram TZ</u>. Diversity of reporter expression patterns in transgenic mouse lines targeting corticotropin releasing hormone-expressing neurons. **Endocrinology**, 156:4769-80, 2015.

Baglietto-Vargas D, Chen Y, Suh D, Ager RR, Rodriguez-Ortiz CJ, Medeiros R, Myczek K, Green KN, <u>Baram TZ</u>, LaFerla FM. Short-term modern life-like stress exacerbates Aβ-pathology and synapse loss in 3xTg-AD mice. **J Neurochem**, 134:915-26, 2015.

Dubé CM, Molet J, Singh-Taylor A, Ivy A, Maras PM, <u>Baram TZ</u>. Hyper-excitability and epilepsy generated by chronic early-life stress. **Neurobiol Stress**, 2:10-19, 2015.

Singh-Taylor A, Korosi A, Molet J, Gunn BG, <u>Baram TZ</u>. Synaptic rewiring of stress-sensitive neurons by early-life experience: a mechanism for resilience? **Neurobiol Stress**, 1:109-115, 2015.

Molet J, Maras, PM, Avishai-Eliner S, <u>Baram TZ</u>. Naturalistic models of Chronic Early-Life Stress. **Develop Psychobiol**, 56:1675-88, 2014.

Maras PM, Chen Y, Molet J, Rice C, Ji SG, Solodkin A, <u>Baram TZ</u>. Preferential loss of dorsalhippocampus synapses underlies memory process impairment provoked by short, multi-modal stress. **Mol Psychiatry**, 19:811-22, 2014. Andres AL, Regev L, Phi L, Seese RR, Chen Y, Gall CM, <u>Baram TZ</u>. NMDA receptor activation and calpain contribute to disruption of dendritic spines by the stress neuropeptide CRH. **J Neurosci**, 33:16945-60, 2013.

Karsten CA, <u>Baram TZ</u>. How does a neuron "know" to modulate its epigenetic machinery in response to early-life environment/experience? **Front Psychiatry**, 4:89, 2013.

Vogel-Ciernia A, Barrett RM, Matheos DP, Kramár E, Azzawi S, Chen Y, Magnan CN, Zeller M, Sylvain A, Haettig J, Jia Y, Tran A, Dang R, Post RJ, Chabrier M, Babayan A, Wu JI, Crabtree GR, Baldi P, <u>Baram TZ</u>, Lynch G, Wood MA. The neuron-specific chromatin regulatory subunit BAF53b is necessary for synaptic plasticity and memory. **Nat Neurosci**, 16:552-61, 2013.

Cope JL, Regev L, Chen Y, Korosi A, Rice CJ, Ji S, Rogge GA, Wood MA, <u>Baram TZ</u>. Differential contribution of CBP:CREB binding to corticotropin-releasing hormone expression in the infant and adult hypothalamus. **Stress**, 17:39-50, 2014.

Chen Y, Kramár EA, Chen LY, Babayan AH, Andres AL, Gall CM, Lynch G, <u>Baram TZ</u>. Impairment of synaptic plasticity by the stress mediator CRH involves selective destruction of thin dendritic spines via RhoA signaling. **Mol Psychiatry**, 18:485-96, 2013.

Maras, PM, <u>Baram TZ</u>. Sculpting the hippocampus from within: stress, spines, and CRH. **Trends Neurosci**, 35:315-24, 2012.

<u>Baram TZ</u>, Davis EP, Obenaus A, Sandman CA, Small SL, Solodkin A, Stern H. Fragmentation and unpredictability of early-life experience in mental disorders. **Am J Psychiatry**, 169:907-915, 2012.

Chen Y, Andres A, Frotscher M, <u>Baram TZ</u>. Tuning synaptic transmission in the hippocampus by stress: The CRH system. **Front Cellular Neurosci**, 6:13, 2012.

Wang XD, Rammes G, Kraev I, Wolf M, Liebl C, Scharf SH, Rice CJ, Wurst W, Holsboer F, Deussing JM, <u>Baram TZ</u>, Stewart MG, Müller MB, Schmidt MV. Forebrain CRF1 modulates early-life stressprogrammed cognitive deficits. **J Neurosci**, 31:13625-13634, 2011.

McClelland S, Korosi A, Cope J, Ivy A, <u>Baram TZ</u>. Emerging roles of epigenetic mechanisms in the enduring effects of neonatal stress and experience on learning and memory. **Neurobiol Learn Mem**, 96:79-88, 2011.

Wang XD, Chen Y, Wolf M, Wagner KV, Liebl C, Scharf SH, Harbich D, Mayer B, Wurst W, Holsboer F, Deussing JM, <u>Baram TZ</u>, Müller MB, Schmidt MV. Forebrain CRHR1 deficiency attenuates chronic stress-induced cognitive deficits and dendritic remodeling. **Neurobiol Dis**, 42:300-310, 2011.

Ivy A, Rex C, Chen Y, Dubé C, Maras P, Grigoriadis D, Gall C, Lynch G, <u>Baram TZ</u>. Hippocampal dysfunction and cognitive impairments provoked by chronic early-life stress involve excessive activation of CRH receptors. **J Neurosci** 30:13005-13015, 2010.

Korosi A, <u>Baram TZ</u>. Plasticity of the stress response early-in life: mechanisms and significance. **Dev Psychobiol**, 52:661-670, 2010.

Bale TL, <u>Baram TZ</u>, Brown AS, Goldstein JM, Insel TR, McCarthy MM, Nemeroff CB, Reyes TM, Simerly RB, Susser ES, Nestler, EJ. Early life programming and neurodevelopmental disorders. **Biol Psychiatry**, 68:314-319, 2010.

Chen Y, Rex CS, Rice CJ, Dubé CM, Gall CM, Lynch G, <u>Baram TZ</u>. Correlated memory defects and hippocampal dendritic spine loss after acute stress involve corticotropin-releasing hormone signaling. **Proc National Acad Sci**, 29:13123-13128, 2010.

Pellock JM, Hrachovy R, Shinnar S, <u>Baram TZ</u>, Bettis D, Dlugos DJ, Gaillard WD, Gibson PA, Holmes GL, Nordli DR, O'Dell C, Shields WD, Trevathan E, Wheless JW. Infantile spasms: A U.S. consensus report. **Epilepsia**, 51:2175-2189, 2010.

Korosi A, Shanabrough M, McClelland S, Liu ZW, Borak E, Gao XB, Horvath TL, <u>Baram TZ</u>. Early-life experience reduces excitation to stress-responsive hypothalamic neurons and reprograms the expression of corticotropin-releasing hormone. **J Neurosci**, 30:703-713, 2010.

Joëls, M, Baram TZ. The neuro-symphony of stress. Nature Reviews Neuroscience, 6:459-466, 2009.

Dube CM, Brewster AL, <u>Baram TZ</u>. Febrile seizures: mechanisms and relationship to epilepsy. **Brain Dev**, 5:366-371, 2009.

Korosi A, Baram TZ. The pathways from mother's love to baby's future. **Front Behav Neurosci**, 3:27, 2009.

Chen Y, Dubé C, Rice CJ, <u>Baram TZ</u>. Rapid loss of dendritic spines after stress involves derangement of spine dynamics by corticotropin-releasing hormone. **J Neurosci**, 28:2903-2911, 2008.

Ivy AS, Brunson KL, Sandman C, <u>Baram TZ</u>. Dysfunctional nurturing behavior in rat dams with limited access to nesting material: A clinically relevant model for early-life stress. **Neuroscience**, 154:1132-42, 2008.

Rice CJ, Sandman CA, Lenjavi MR, <u>Baram TZ</u>. A novel mouse model for acute and long-lasting consequences of early life stress. **Endocrinology**, 149:4892-900, 2008.

Korosi A, <u>Baram TZ</u>. The central corticotropin releasing factor system during development and adulthood. **Eur J Pharmacol**, 583:204-14, 2008.

Fenoglio KA, Chen Y, <u>Baram TZ</u>. Neuroplasticity of the hypothalamic-pituitary-adrenal (HPA) axis early in life requires recurrent recruitment of stress-regulating brain regions. **J Neurosci**, 26:2434-2442, 2006.

Chen Y, Fenoglio KA, Dube CM, Grigoriadis DE, <u>Baram TZ</u>. Cellular and molecular mechanisms of hippocampal activation by acute stress are age-dependent. **Mol Psychiatry**, 11:992-1002, 2006.

Fenoglio KA, Brunson KL, <u>Baram TZ</u>. Hippocampal neuroplasticity induced by early-life stress: functional and molecular aspects. **Front Neuroendocrinol**, 27:180-192, 2006.

Brunson KL, Kramár E, Lin B, Chen Y, Colgin LL, Yanagihara TL, Lynch G, <u>Baram TZ</u>. Mechanisms of late-onset cognitive decline after early life stress. **J Neurosci**, 25:9328-9338, 2005.

Fenoglio KA, Brunson KL, Avishai-Eliner S, Stone BA, Kapadia BJ, <u>Baram TZ</u>. Enduring, handlingevoked enhancement of hippocampal memory function and GR expression involves activation of the CRF type-1 receptor. **Endocrinology**, 146:4090-4096, 2005. Brunson KL, <u>Baram TZ</u>, Bender RA. Hippocampal neurogenesis is not enhanced by lifelong reduction of glucocorticoid levels. **Hippocampus**, 15:491-501, 2005.

Chen Y, Bender RA, Brunson KL, Pomper J, Grigoriadis DE, Wurst W, <u>Baram TZ</u>. Modulation of dendritic differentiation by corticotropin-releasing factor in the developing hippocampus. **Proc Nat Acad Sci**, 101:15782-15787, 2004.

Chen Y, Brunson KL, Adelmann G, Bender RA, Frotscher M, <u>Baram TZ</u>. Hippocampal corticotropin releasing hormone: pre- and postsynaptic location and release by stress. **Neuroscience**, 126:533-540, 2004.

Mackay MT, Weiss SK, Adams-Webber T, Ashwal S, Stephens D, Ballaban-Gill K, <u>Baram TZ</u>, Duchowny M, Hirtz D, Pellock JM, Shields WD, Shinnar S, Wyllie E, Snead OC 3rd; American Academy of Neurology; Child Neurology Society. Practice parameter: medical treatment of infantile spasms: report of the AAN and Child Neurology Society. **Neurology**, 62:1668-1681, 2004.

Fenoglio KA, Brunson KL, Avishai-Eliner S, Chen Y, <u>Baram TZ</u>. Region-specific onset of handlinginduced changes in corticotropin-releasing factor and glucocorticoid receptor expression. **Endocrinology**, 145:2702-6, 2004.

Brunson KL, Chen Y, Avishai-Eliner S, <u>Baram TZ</u>. Stress and the developing hippocampus: a doubleedged sword? **Mol Neurobiol**, 27:121-136, 2003.

Avishai-Eliner S, Brunson KL, Sandman CA, <u>Baram TZ.</u> 'Stressed out?' Or *in (utero*). **Trends Neurosci**, 25:518-524, 2002.

Brunson KL, Grigoriadis DE, Lorang MT, <u>Baram TZ</u>. Corticotropin-releasing hormone (CRH) downregulates the function of its receptor (CRF₁) and induces CRF₁ expression in hippocampal and cortical regions of the immature rat brain. **Exp Neurol**, 176:75-86, 2002.

Roozendaal B, Brunson KL, Holloway B, McGaugh JL, <u>Baram TZ</u>. Involvement of stress-released Corticotropin-Releasing Hormone in the basolateral amygdala in regulating memory consolidation. **Proc Nat Acad Sci**, 99:13908-13913, 2002.

Brunson KL, Eghbal-Ahmadi M, Roland R, Chen Y, <u>Baram TZ</u>. Long-term progressive hippocampal cell loss and dysfunction induced by early-life administration of corticotropin releasing hormone reproduce the effects of early-life stress. **Proc Nat Acad Sci**, 98:8856-8861, 2001.

Avishai-Eliner S, Eghbal-Ahmadi M, Tabatchnik E, Brunson KL, <u>Baram TZ</u>. Down-regulation of hypothalamic corticotropin-releasing hormone messenger ribonucleic acid (mRNA) precedes early-life experience-induced changes in hippocampal glucocorticoid receptor mRNA. **Endocrinology**, 142:89-97, 2001.

Avishai-Eliner S, Gilles EE, Eghbal-Ahmadi M, Bar-El Y, <u>Baram TZ</u>. Altered regulation of Gene and Protein Expression of Hypothalamic-Pituitary-Adrenal Axis Components in an immature Rat Model of Chronic Stress. **J Neuroendocrinol**, 13:799-807, 2001.

Bender R, Lauterborn J, Gall CM, Cariaga W, <u>Baram TZ</u>. Enhanced CREB phosphorylation in immature dentate gyrus granule cells indicates a specific role for CREB in granule cell differentiation. **Eur J Neurosci**, 13:679-86, 2001.

Brunson KL, Avishai-Eliner S, Hatalski CG, <u>Baram TZ</u>. Neurobiology of the stress response early in life: evolution of a concept and the role of corticotropin releasing hormone. **Mol Psychiatry**, 6:647-656, 2001.

Brunson KL, Khan N, Eghbal-Ahmadi, <u>Baram TZ</u>. Corticotropin (ACTH) acts directly on amygdala neurons to down-regulate corticotropin releasing hormone gene expression. **Ann Neurol**, 49:304-312, 2001.

Chen Y, Bender R, Frotscher M, <u>Baram TZ.</u> Novel and transient populations of corticotropin-releasing hormone-expressing neurons in developing hippocampus suggest unique functional roles: a quantitative spatiotemporal analysis. **J Neurosci**, 21:7171-7181, 2001.

Chen Y, Hatalski CG, Brunson KL, <u>Baram TZ</u>. Rapid phosphorylation of the CRE binding protein precedes stress-induced activation of the corticotropin releasing hormone gene in medial parvocellular hypothalamic neurons of the immature rat. **Mol Brain Res**, 96:39-49, 2001.

Chen Y, Brunson K, Müller MB, Cariaga W, <u>Baram TZ</u>. Immunocytochemical distribution of corticotropin-releasing hormone receptor type-1 (CRF₁)-like immunoreactivity in the mouse brain: Light microscopy analysis using an antibody directed against the C-terminus. **J Comp Neurol**, 420:305-23, 2000.

Dubé C, Brunson K, Nehlig A, <u>Baram TZ.</u> Activation of specific neuronal circuits by corticotropin releasing hormone, as indicated by c-fos expression and glucose metabolism. **J Cerebral Blood Flow & Metabolism**, 20:1414-24, 2000.

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Febrile seizures, Developmental Epilepsy and underlying mechanisms

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Editorials, invited papers and Book chapters (1997-):

Brennan GP, Baram TZ, Poolos NP. Hyperpolarization-activated cyclic nucleotide-gated (HCN) channels in Epilepsy. **Cold Spring Harb Perspect Med**, 6:a022384, 2016.

Maras PM, <u>Baram TZ</u>. Early-life stress: rodent models, lessons and challenges. In Neuroendocrinology of Stress, Masterclass in Neuroendocrinology Series. Eds: JA Russell & MJ Shipston. Wiley. 2015.

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Dubé CM, <u>Baram TZ</u>. Febrile seizures. In: The Epilepsies 3. S. Shorvon & T. Pedley, Eds. Elsevier, pp. 17-26, 2008.

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<u>Baram TZ</u>. Myoclonic Seizures and syndromes in infants and children. In: Pediatric Neurology: Principles and Practice, 4th Edition, Volume 2. Swaiman, Ashwal, Ferriero, Editors. Philadelphia, PA: Mosby Elsevier, 2006.

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Recent Public Reports and citations of Research:

2016 – UCI Press Release for Molet et al. 2016 (https://news.uci.edu/health/put-the-cellphone-away-fragmented-baby-care-can-affect-braindevelopment/) 2014 – UCI Press Release for Choy et al. 2014 (http://news.uci.edu/features/predicting-epilepsy/) 2014 – Society for Neuroscience Press Release for Choy et al. 2014 (http://www.sfn.org/Press-Room/News-Release-Archives/2014/Animal-Study-Unveils-Predictive-Marker-for-Epilepsy-Development-Following-Febrile-Seizure

Note: Published Abstracts total >400, are not included.

Teaching and Service:

These activities include both formal and informal mentoring, as well as teaching at the personal, institutional and national arenas:

1. Mentoring:

National level:

AES mentoring sessions for Junior Investigators, AES meetings 2007- 2014. NIH Mentoring sessions for Physician-Scientists: Panelist & contributor, 2007-Member, NINDS NST review (study section) for individual training grants (e.g., K series 2000-2004) Informal mentor to Junior Academic faculty, of both genders, engaged in Neuroscience Research. Child Neurology Society/ NINDS mentoring, grant-preparation session, October, 2001.

Institutional level:

<u>PI</u>, NIH T32 training grant for postdoctoral research in Epilepsy Science and Career Advisor, UCI Medical Scientist Training Program (MD/PhD) 1999-

Honors and Awards of Trainees

UROP (Undergraduate Research opportunities Program) Excellence in Research		
Award: Emily Majorkiewicz and Manlin Shao		
Keystone Symposia Scholarship, Elkes Foundation, Jessica Bolton	2016	
NDC Young Investigator Award of the Child Neurology Society, Autumn Ivy	2015	
Hewitt Fellowship Award, Jessica Bolton	2015	
Neurobiology of Stress Trainee Travel Award, Akanksha Singh	2014	
Epilepsy Foundation Research Fellowship; Kate Patterson	2013	
Biological Sciences Excellence in Research, final paper published		
J Undergraduate Research in the Biological Sciences, Mina Hashemian	2013	
Hewitt Fellowship Award, Gary Brennan	2012-2015	
Grass Foundation Young Investigator Award, Mankin Choy	2012	
International Rubicon Grant, Dutch Science Foundation: Yoav Noam	2012-2014	
Hewitt Fellowship Award: Pamela Maras	2010-2013	
UCI Best Neurology Medical Student: Autumn Ivy	2012	
Hewitt Fellowship Award: Courtney Rice	2009-2010	
National Goldwater Fellowship, Maryjane Vennat	2009	
UROP (Undergraduate Research Opportunities Program) Excellence in Research		
award: Kimberly Fok, A. Petrosyan, Amy Yeh; Dean Top Research Award:		
A. Petrosyan, Lucas Phi	2009-2012	
NIMH Predoctoral NRSA Award: Autumn Ivy	2009-2010	
NINDS Minority Supplemental Award, Autumn Ivy	2008-2009	
NIH NINDS Predoctoral NRSA Award: Amy Brewster	2004-2007	
ARCS (Achievement Rewards for College Scientists) Award: Kristina Fenoglio	2005	
UROP, Successful Excellence in Research Application: Amy Yeh	2005	
AES/EFA Postdoctoral Research Award: Celine Dubé, Pl	2003-2004	
EFA/AES Postdoctoral Research Travel Award: Roland Bender	2001-2002	
AES Postdoctoral Research Travel Award: Celine Dubé	2002	

Society for Neuroscience Postdoctoral Award: Yuncai Chen	2002
NIH NINDS Minority Graduate Student Research Supplement: Amy Brewster	2001
UROP, Successful applications: Kim Tran and Erene Mina	2000
Society for Neuroscience Graduate Student Travel Award: Kristen Brunson	2000
UROP, Successful applications: Guitar Hanna and Erene Mina	2000
UCI, Schneiderman Award for Outstanding Graduate Student: Kristen Brunson	1999
AES Graduate Student Research Travel Award: Celine Dubé	1999
UROP Campus-Wide Excellence in Research Program, Successful applications:	
Erene Mina and Najeeb Khan	1999
EFA Predoctoral Research Award: Celine Dubé	1998
UROP, Campus-Wide Research Symposium: Viet Tran and Ben Tantayanubutr	1998
CHLA Postdoctoral Research Award: Sarit Avishai-Eliner	1995-1996
USC/CHLA Postdoctoral Research Award: Sujin-Yi	1992-1994

Individual level:

A. Mentor & Career advisor (reverse chronology):

Daniel Shrey, MD, March 2016-

Currently Assistant Clinical Professor, Neurology, UCI.

Beth Lopour, PhD. August 2015-

Currently Assistant Prof, Biomedical Engineering, UCI.

Yama Akbari, MD, PhD, July 2012-2016. K12 submitted and funded 2014-2016. Currently Asst. Prof., Neurology, UCI.

Daniela Bota, MD, PhD. 2009-. K08 submitted and funded 2011-2016.

Currently Assoc. Prof., Neurology, UCI.

Devin Binder, MD, PhD, June 2006-2012. K08 submitted and funded 2007-11. Clinician-Scientist Award in Epilepsy Research 12/06. Received independent RO1.

Currently Assoc Prof. in Residence, Biomedical Sciences, UC-Riverside

Jack Lin, MD 2004-, K23 submitted & funded 2009-2014. Epilepsy Found Res Award, received 2006-07.

Currently Assoc. Prof. Clinical Neurology, Director, UC Irvine Comprehensive Epilepsy Program.

Howard Kim, MD, 2003-06. Two papers published on clinical studies of Video-EEG in epilepsy/autism. Assoc Professor, 2007.

Ulrike Luderer, MD, PhD 2000-, NIH grant K08 submitted June 2000, revised March 2001, funded 2002. R01 funded 2011.

Currently Professor, Medicine, UCI.

Jong Rho, MD, 9/2000-6/2004 Asst Professor, Pediatrics & Neurology, UCI. NIH K08 awardee (P. Schwartzkroin, original Mentor, TZ Baram, Mentor). K02 funded 2003. Tenured Assoc Professor, 11/2003. Currently Professor, Univ of Calgary.

Ranjan Gupta, MD, 1999-. NIH K08 funded 2000. R01 funded 2004.

Currently Professor and Chair, Orthopaedic Surgery; Prof, Anatomy/ Neurobiology, and Biomedical Engineering

Richard Kim, MD, 1998-2001, NIH grant K23 submitted 2001.

Currently Asst Clinical Professor Neurosurgery

Susan Koh, MD, 1994-1998 Clinical / career advisor.

Currently Prof. of Clinical Practice, Pediatrics-Neurology, University of Colorado, Denver.

Anne Tournay, BSc, FRCP, 1991-1995, Clinical / career advisor.

Currently Assoc Clinical Professor, Neurology & Pediatrics, University of California-Irvine. Sarit-Avishai Eliner, MD.

Currently Professor with tenure, Pediatrics, Hebrew Univ, Israel.

B. Postdoctoral trainees:

Annabel Short, PhD, Sept 2016-

Noriko Kamei, PhD, Sept 2016-

Neggy Rismanchi, MD, PhD, July 2016-

Jessica Bolton, PhD, June 2015-

Alicia Hall, PhD, May 2015-

Anton Schulmann, MD, 5/15-5/2016. Currently Assoc Specialist, Psychiatry & Human Behavior, UCI.

Deblina Dey, 12/2013-5/2015. Currently Postdoc, Radiation Oncology, UCI.

Adrienne Andres, PhD, 10/2013-4/2014, Currently Research Scientist, Vertex Pharmaceuticals, Irvine, CA.

Akanksha Singh, PhD, February 2013-May 2016. Scientist, Johnson and Johnson.

Gary Brennan, PhD, 10/2012-9/2015. Currently Postdoctoral Fellow, Dublin City University, Ireland.

Jenny Molet, PhD, 8/2012-7/2015. Currently Postdoctoral Fellow, Clinatec, CEA/LETI, Grenoble, France.

Yoav Noam, 1/2012-12/2013, Rubicon grant recipient. Currently Postdoc Assoc, Yale Univ., New Haven CT.

Limor Regev, PhD, June 2011-June 2014. Currently Lab Manager at The Hebrew Univ of Jerusalem.

Shawn McClelland, PhD, August 2011-March 2012, Currently Bioinformatics Supervisor Thermoscientific.

Pamela Patterson (Maras), PhD, 06/2010-9/2012, Hewitt Fellowship, 2010, Currently Postdoc Researcher, Univ. of Michigan.

Mankin Choy, PhD, Jan 2010-July 2013. Currently Postdoc Research Associate, Stanford Univ, CA.

Aniko Korosi, PhD, Sept 2006-Nov 2010. Currently Assoc. Prof, Univ of Amsterdam, The Netherlands.

QinQin Zha, PhD, September 2005-2009. Currently postdoctoral fellow, Univ of Tennessee, TN.

Amy Brewster, PhD, July 2006-July 2007. Currently Asst. Prof, Purdue Univ. IN.

Cristina Richichi, PhD, Dec 2003- Aug 2007. Currently Asst Prof, Mario Negri University, Milan.

Timothy Simeone, PhD, Dec 2002-Feb 2005. Currently Asst Prof, Creighton Univ., NE.

Celine Dubé, PhD, 2001-2005; Project Scientist 2006-2014. Currently Senior Research Scientist, Xenon Pharmaceuticals.

Kristen L. Brunson, PhD, 12/00-04. Currently Senior Manager, Genentech, S. San Francisco, CA.

Roland A. Bender, PhD, 1999-2004. Currently Assoc Prof, Univ of Hamburg, Germany.

Yuncai Chen, PhD, November 1998-2004 Currently Associate Project Scientist, UCI.

Carolyn Hatalski, PhD, August 1996- April 1999.

Zsolt Toth, PhD, 1997-1998. Currently Assoc. Prof., Univ of Pécs, Hungary.

Xiao-Xin Yan, PhD, October 1997-June 1998. Currently Professor, Central South University, China.

Elizabeth Gilles, MD 1994-1996. Currently Medical Director of Pediatric Neurology and Asst. Prof. of Pediatrics, Univ of Minnesota, MN.

Sarit Avishai-Eliner, MD, 1993-1996. Currently Professor with tenure, Hebrew University, Israel.

C.Graduate trainees:

Megan Curran, BSc, MD/PhD Student Fall 2014-

Katelin Patterson, BA, Summer 2012-Summer 2016. PhD 2016.

Eli Kinney-Lang, BSc, September 2013-April 2015. Currently in Graduate School in Scotland. Sicco de Knecht, BSc, 2011-2012. Currently PhD student, University of Amsterdam, The Netherlands Jessica Cope, BSc, 2010-2012. MSc in 2012. Currently Contract Editor College Paper Partner, WA. Adrienne Andres, BSc, 2009-2013. Currently Research Scientist, Vertex Pharmaceuticals, Irvine, CA. Willemieke Kouwenhoven, MSc, 2009-2010. Currently PhD student at the University of Amsterdam. Yoav Noam, BSc, Winter 2007-2011. Currently Postdoc, Yale University, New Haven CT. Shawn McClelland, MSc, Fall 2007-2010. Currently Bioinformatics executive Thermoscientific. Autumn Ivy, BSc, MSTP Program, Spring 2006-Fall 2010, PhD 2010, MD 2012. Currently Child neurology fellow Stanford Univ. Courtney Burgdorff-Rice, Spring 2006-Summer 2009, PhD 2009, Amy Brewster, BSc; September 2000-June 2006 (minority student). 11 papers; PI, NINDS NRSA, 2004-2006. Currently Asst. Prof, Purdue Univ. IN. Kristina Simeone, PhD (Fenoglio, Dorenbos), Jan 2002-June 2006. Currently Assoc Prof Creighton Univ., NE Jörn Pomper, Med Stud, 2001-2002. Currently Asst Prof, Cognitive Neurol, Univ Tübingen, Germany. Mariam Eghbal-Ahmadi, CSULB Master's student, Oct 1998-Aug 2000. CAO, Voxx Analytics, CA. Celine Dubé, BSc, May 1998-Aug 2000 (in collaboration with Dr. A. Nehlig, Strasbourg). Kristen Brunson, MSc, July 1997-Dec 2000. PhD Thesis: "Activation and injury of limbic neurons by corticotropin releasing hormone." Recipient: Schneiderman predoctoral award: NIA NRSA. Currently- Senior Manager, Genentech, Rotation graduate students: XiaoTing Zheng, INP program, Fall 2014 Megan Curran, MSTP program, Summer 2014 Naomi Lomeli, Winter 2014 Irina Nesterendo, Fall 2103 Maryann Platt, Fall 2013 Carley Karsten, INP program, rotation Summer 2012-Summer 2013 Sunggoan Ji, MSTP program, Summer 2012 Katelin Patterson, Fall 2011-Summer 2012 Elise Kleeman, Winter 2010 Jessica Cope, Fall 2009-2010 Yasaman Alaghband, Winter 2009 Julia Mattson, MSTP program, Summer 2008 Shawn McClelland, Summer-Fall 2007 Celina Mojica, MBGB graduate program, rotation Fall 2007 Stephanie McHughen, INP graduate program, rotation Winter 2006 Jessica Linford, BSc, MBGB graduate program, rotation Winter 2005 Jasmin Dao, INP graduate program. rotation Fall 2005 Joyce Cramer, Graduate Student, rotation Winter 1999 D. Undergraduates students (199): 2016-: Christine Mun, Emily Majorkiewicz, Don Ha 2015-: Manlin Shao, Zhiye (Jack) Yang 2015: Cindy Ly, Kimberly Gonzalez, Tiffany My-Tien Nguyen 2013-2015: Catherine Ly, Ma Koreena Yu 2011-2012: Sharon Ng, Lina Acopians 2010-2012: Sarah Quddusi 2010-2011: Kristen Ng; Seeta Raipara: Bryant Lee 2009-2010: Sharib Gaffar; Indra Tjong 2008-2010: Jacqueline C. So; Maryjane J. Vennat, (minority student) 2008-2010: Jennifer L. Mundy 2007-2009: Andrew J. Keebaugh; Helen Truong 2006-2008: Alex Ring 2006-2007: Mary Williams (Minority Student Program) 2006-2007: Mary Guirguis; Nita Patel

- 2006: Elizabeth Custodio
- 2005-2006: Mike (ming) Lee
- 2004-2006: Grace Chung
- 2004-2005: Amy Tran
- 2003-2004: Karen LeBlanc
- 2002-2004: Guitty Fahrmand
- 2002-2003: Ricky Luu, Now at UCI medical school, Excellence in Research program, 2003
- 2001: Edouardo Ramirez, (Minority outreach student)
- 1996-1997: Mark Bounthavong;
- 1995-1997: Angelika Gerth, 2 papers, one 1st author
- 1995-1996: Mariam Eghbal-Ahmadi, Grad CSU Long Beach master's program; Christine Guirguis, Medical School (MD, 2003), now resident in family practice; Yani Kotsoukos, 2 papers

Honor Undergraduates (199):

- 2016: Manlin Shao, 2016-17, UROP Fellow Excellence in Research grant awardee
- 2016: Emily D. Majorkiewicz, 2016-17 UROP Fellow Excellence in Research grant awardee
- 2015: Mary Sargious, Excellence in Research; 2016 UCI Undergraduate Research Symposium: "Interfering with HMGB1 Does Not Prevent Inflammation following Febrile Status Epilepticus"
- 2012-2013: Mina Hashemian, Biological Sciences Excellence in Research 2013, final paper published J Undergraduate Research in the Biological Sciences
- 2011-2012 Lucas Phi, UROP 2012 grant awardee, UROP oral presentation
- 2008-2011: Maria C. Pakhdikian, UROP oral presentation, UROP grant awardee
- 2008-2010: Romela Petrosyan, Dean's award of excellence, 2009, given to 3 of several thousand applicants, as well as high honors in her UROP oral presentation; Kimberly F. Fok, UROP awardee
- 2004-2005: Amy Yeh, UROP grant awardee and honor program
- 1999-2002: Kim Tran, UROP 2001 grant awardee; Guitar Hanna, UROP grant awardee 2000, 2001
- 1998-2001: Erene Mina, UROP awardee, 2000, 2001; Now at UCI MBGB grad. prog., 2001
- 1997-2000: Najeeb Khan, UROP honors, UROP grant awardee; Northwestern Sch. of Med., Co-author, Ann Neurol, 2001; NIH. HH fellowship, applied 2005.
- 1997-1998: Ben Tantayanubutr, UROP grant awardee, 1998
- (Medical Students: Bara Mouradi, Kimberly Ray, Summer, 1998)
- 1996-1998: Viet Tran, Honors, UROP awardee, went to USC School of Medicine

D.Advancement, Qualification or Thesis committees:

Brian Vegetabile, (Hal Stern, Mentor, Statistics), Advancement Committee, 2016

Claudia (Kaye) Wu, (Craig Stark, Mentor, Neurobiol & Behavior), Advancement Committee, 2016 Shan (Mandy) Jiang (Ali Mortazavi, Mentor, Developmental & Cell Biology), Graduate Committee, 2015 Don Wei (Daniele Piomelli, Mentor, Anatomy & Neurobiology), Advisory /Advancement Committee, 2014

Ronnie Seese (Chris Gall, Mentor, Anatomy & Neurobiology), Advisory /Advancement Committee, 2013

James Lim (Danielle Piomelli, Mentor, Pharmacology), Advisory /Advancement Committee, 2012 Ronald Seese (Chris Gall, Mentor, Anatomy & Neurobiol), Advisory/Advancement Committee, 2010-2013

Lulu Chen (Chris Gall, Mentor, Anatomy & Neurobiology) 2007-2010

Regina Mangieri (Danielle Piomelli, Mentor, Pharmacology), 2006

Stephanie McHughen, (Anatomy & Neurobiology), Advisory /Advancement Committee, 2005

Junran Cao (Frances Leslie, Mentor, Pharmacology) Advancement Committee, 2004

A.J. Barela (Alan Goldin, Mentor, Physiol & Biophys) Advancement Committee, 2003

Fumio Ogoshi (John Weiss, Neurology & Neurobiology/Behavior) Advancement Committee, 2002

Rong Fan (Andrea Tanner, Mentor, MBGB) Qualifying Exam Committee, 2000

2. Training grants:

Institutional Training/ Research Grant focused on Epilepsy (T-32); Baram, PI (2003-2019) This focused postdoctoral training grant involves 11 laboratories employing a wide spectrum of approaches to Neuroscience Research, as well as Genomics and subcellular technology. Funded July 2003 and renewed in 2009 and 2014, it encourages PhD and MD trainees to engage in Epilepsy Research.

Developing New Biotechnology Targets in Developmental Epilepsies.

Biotechnology oriented Research and Education Program (BREP) award (7/98-9/00); Baram, PI This grant provided research/training support for collaborative research in Epilepsy to 6 laboratories at UCI, enhancing epilepsy-focused efforts and attracting trainees to the field.

Institutional Research Training Grant for Medical Students at UCI. NIH -T35GM/AG08630;

Baram, PI 7/97-6/02. A funded grant providing research incentive and support to medical students during the summer. Involves over 60 investigators and 18 positions per year.

3. Formal Course Teaching:

Course 1:

Winter 2011, Course creator and Director: Epilepsy as a window to mechanisms of neuronal plasticity, 9 lectures and seminar, ~15 participants

Winter 2013, Winter 2015, Epilepsy as a window to brain neuroplasticity. Course Creator and director.

Course 2:

Spring 2002-2012, Systems Neuroscience, (**Medical Students, Year 1**). Spring 2014-2016 Medical Neuroscience, (**Medical Students, Year 1**). Dr Baram provides lectures on clinical correlates of thalamic and limbic function and dysfunction

Course 3:

Winter/Spring 2005, 2006; Fall/Winter 2007-2016; Foundations of Neuroscience. Graduate students, Interdepartmental Neuroscience Program (INP).

<u>Course 4</u>: Winter 2012-2016, Systems Neuroscience (Graduate Students, Year 1). Lecture: The Hypothalamus

Course 5:

2011- ; Monthly CHOC/UCI Journal Clubs.

Course 6:

Fall 2016; Neurology Resident course "The Neurologist's Guide to the Hypothalamus".

Course 7:

Summer/Fall 2006-2009; Basic and Advanced Skills in Pediatric Neurology (Medical postgraduates).

Course 8

Every quarter, 2006-2010; New faculty orientation and education.

Course creator and organizer: education about the clinical and research communities at UCI- and their integration. Mandatory class to all new UCI school of medicine faculty.

B. National and International courses:

- 2016 Early-life experience and brain programming, Utrecht University (May) Baram.
- 2014 Amsterdam Brain and Cognition (ABC) Summer School, Amsterdam, The Netherlands: "Early experience, maternal care and programming of the brain".
- 2012 Foundations of developmental epilepsy: the international league against epilepsy (ILAE), San Servolo, Venice, Italy; Lecturer (x 2) and discussion leader.
- 2010 Annual Course: Inflammation and Epilepsy, American Epilepsy Society, the major teaching course of AES; Lecturer and discussant.
- 2009 European Neuroscience (FENS) and international brain organization (IBRO) course on the <u>foundation of stress research</u>. Rhodes; Lecturer and small group leader
- 2007 Foundations of developmental epilepsy: the international league against epilepsy (ILAE), San Servolo, Venice, Italy; Lecturer and discussion leader.
- 2005 National EpiFellows Intensive course, speaker (Epilepsy 2005). Washington DC.
- 2003 NINDS and AES: Neurobiology of disease course in the Soc. Neurosci. Mtg, faculty.
- 2002 Neonatology course series: effects of neonatal stress on brain function.
- 1996 Royal Society of Medicine & American Academy of Pediatrics combined Advanced Course, London, England, Invited speaker.

Service:

National and International Professional Service:

See prior section for Federal and Professional-Society roles Additional information: Reviewer, the IDEA League (Dravet Syndrome), 2010 Belgian ScienceGrant system, Review, 2011-Austrian Science Foundation, Reviewer, 2006 Grants Program, U.S. Civilian R & D Foundation for former USSR zone countries- Reviewer, 2001 National Grant Review: SF, EFA, PERP, CURE

Institutional Committees, UCI service:

Search Committee, Dean for the School of Medicine, 2015-2016 Search Committee, Chair for Anatomy & Neurobiology, 2015-; Chair 2016Internal Advisory Board, NIH ADRC P50 (PI: Dr. Frank M. LaFerla), UCI Francisco J. Avala School of Biological Sciences, 2014-2016 Chair, Ad Hoc Review Committee, Academic Affairs, 2014 Search Committee, Vice Chancellor for Health Affairs, 2014-2015 Internal Advisory Board, UC Irvine Multidisciplinary Exercise Science NIH T32 training grant, 2013 Med School Interview Day, UCI School of Medicine, November 2012, January 2015. Strategic Plan: Implementation Steward, 2011-Dean's Leadership Committee, 2011-Search Committee, Senior Associate Dean, Research, February 2010 Search Committee, Chairman of Neurology, 2008-2010 Steering Committee, Strategic Planning UCI School of Medicine, March 2010 Member, UCI Institute for Memory Impairments and Neurological Disorders (MIND) Chancellor's Advisory Committee for Permanent Dean of the School of Medicine, August 2009 Dean's Advisory Board UCI School of Medicine, March 2009-2013 Research Council. School of Medicine. UCI. 2007-Scientific Advisory Board, Samueli Center for Complementary Medicine, UCI, 2004-Chair, Vision 2010: Strategic Plan Committee for the School of Medicine (SoM), October 2004-Founder and Director, UCI Epilepsy Research Center (EpiCenter), 2002-Chair, Academic Resources Advisory Committee (promotions & recruitment), UCI SoM, 2000-2004 Member, Strategic Planning / Mentorship Committee for Assistant Professors at UCI, 2001-2004 Athalie Clark Outstanding Research Award Committee, 2000-2002 Committee of the Council on Research, Computing and Library Resources, December 1999 Search Committee, Chair, Department of Pathology, UCI, March-November 1999 Strategic Planning Task Force-Research Committee, UCI, August 1998-Search Committee for Chairman of Neurology, UCI, member, 1996-1998 Chancellor's Committee on Sexual Harassment, UCI, November 1996-March 1997 Neuroscience Steering Committee, UCI, June 1996-December 1996

Community Service:

Panelist, "Forever Changed", UCI Illuminations/Claire Trevor School of the Arts, 2016. Executive Board, Hewitt Foundation for Medical Research 2014-Professional Advisory Board, Epilepsy Alliance of Orange County, 2007- 2011 Membership Advisory Committee, American Neurological Association, 2007-2010

Professional Societies Memberships:

American College of Neuropsychopharmacology; elected 2015-American Neurological Association, elected, 1996-Endocrine Society, 1992-International Society of Neuroendocrinology, 1991-American Epilepsy Society, 1990-Society for Neuroscience, 1989-American Association for Advancement of Science, 1987-American Academy of Neurology, 1982-Child Neurology Society, 1982-

Organization of National / International Conferences and Symposia:

- 2016 Neurobiology of Stress conference, Newport Beach, co-organizer and speaker
- 2015 44th Child Neurology Society (CNS) Annual Meeting, Satellite course on the Neurobiology of Diseases in Children (NDC) co-organizer, 2015
- 2014 International Epilepsy Res Center Symposium, Newport Beach, meeting organizer and speaker
- 2013 Society for Neuroscience symposium: Epigenetics in Epilepsy, San Diego
- 2012 Child Neurology Society New Therapies for Epilepsy; co-organizer with Mary Zupanc
- 2011 International Spring Hippocampus meeting, Verona, session co-organizer
- 2010 First International Meeting on Inflammation & Immunity in Epilepsy, Milan, co-organizer
- 2009 NIMH symposium on early life stress in the SfN meeting, Chicago, IL, co-organizer
- 2009 Child Neurology Society Symposium, Louisville, KY, organizer and speaker
- 2009 NIH NIMH Brain programming conference, Philadelphia, PA, co-organizer and speaker
- 2008 American Epilepsy Society, "Ion Channel Traffic Jams in Epilepsy" organizer & speaker
- 2008 UCI Epilepsy Research Center (EpiCenter) international symposium, co-organizer
- 2007 Am Epilepsy Society, "Hot topics in epilepsy: neuroimmune mediators and epilepsy", organizer and speaker
- 2007 ILAE Workshop: novel AEDs, from the bench to the clinic, contributor
- 2007 Intl Brain Research Organization (IBRO) Symp., Melbourne, Australia, organizer and speaker
- 2007 NIH NIMH "stress and cognition" workshop- co-organizer, contributor
- 2007 UCI Epilepsy Research Center (EpiCenter) International symposium, principal organizer
- 2006 Society for Neuroscience (SfN), Symposium organizer
- 2006 NIH Models workshop, co-organizer, Symposium on Imaging
- 2006 NIH NINDS: Biomarkers in Epileptogenesis workshop, session co-organizer and contributor
- 2005 American Epilepsy Society, symposium organizer (Stress & Epilepsy)
- 2005 Intl. Summer Neuropeptide Conf., Miami, FL, Scientific Committee and Symposium organizer
- 2004 UCI Epilepsy Research Center (EpiCenter) International Symposium, principal organizer
- 2003 American Epilepsy Society Conference, investigators' workshop, organizer
- 2003 NINDS and AES: Neurobiology of disease course in the SfN, faculty
- 2002 Spring Hippocampus Research Conference, workshop organizer
- 1999 American Epilepsy Society, Orlando, investigators' workshop, organizer and speaker
- 1999 Spring Epilepsy Research Conference, Cayman Islands, symposium organizer and speaker
- 1998 Child Neurology Soc Intl Congress, Montreal, Presidential symposium organizer
- 1996 American Epilepsy Society and the International League Against Epilepsy Meeting, San Francisco, Investigators' Workshop
- 1996 Intl. Neuropeptide Society/ Winter Neuropeptide, Breckenridge, CO, symposium organizer
- 1994 Intl. Child Neurology Association/ Child Neurology Society: symposium organizer

Invited Lectures, Symposia and Meetings:

A. National and international meetings and lectures (1995-):

- 1995 European Pediatric Neurology / Neurosurgery Societies, Eilat, Israel: Prospective blinded, randomized study of ACTH and Prednisone for Infantile Spasms.
- 1995 Child Neurology Society, Platform presentation, Baltimore, MD: ACTH or Prednisone for IS?
- 1995 Society for Neuroscience Conference, Platform presentation, San Diego, CA: Developmental profile of the CRF-1 receptor in the rat limbic system.
- 1995 American Epilepsy Society, Baltimore, MD: CRH decreases the threshold to kainic acid induced seizures in the infant rat.
- 1995 American College of Neuropsychopharmacology meeting, Corticotropin Releasing Hormone Receptors: from gene to therapy.

- 1996 Winter Neuropeptide Conference: The developmental Neurobiology of Stress.
- 1996 International Symposium: Stress and the CNS, Zichron, Israel: Developmental neurobiology of Stress: Multi-level regulation of CRH function.
- 1996 Royal Society of Medicine & American Academy of Pediatrics combined Advanced Course, London, England: "Epilepsy in the year 2000".
- 1996 Child Neurology Society, Minneapolis: A phase I study of CRH antagonists as novel anticonvulsants in developmental epilepsies.
- 1997 University of Texas, Distinguished Neurology Seminars, Houston: Infantile Spasms- Current understanding and future therapy.
- 1997 Barrow Neuroscience Institute, Phoenix, AZ: An extreme form of developmental epilepsy: Experimental and clinical update of infantile spasms.
- 1997 Spring Brain Symposium, Sedona, AZ: Mechanisms of developmental epilepsies: insights from animal models.
- 1997 International Conference on Developmental Epilepsies, Strasbourg, France: Mechanisms of non-genetic developmental Epilepsies.
- 1997 Endocrine Society meeting, Minneapolis: CRH antagonist does not prevent acute adrenalectomy induced death of granule cells in the dentate gyrus.
- 1997 Am Epilepsy Society, Boston: Animal models of febrile seizures: history, advantages, pitfalls.
- 1998 University of Paris, Paris, France: "Mechanisms and outcome of Febrile seizures- lessons from animal models".
- 1998 University of Strasbourg, INSERM Unit 398, France: "Developmental Neurobiology of the CNS response to stress".
- 1998 Reims American Hospital, Dept. Neurology & Pediatrics, France: "Reversible neuronal injury in an animal model of febrile seizures".
- 1998 Presidential Symposium, Child Neurology Society, Montreal, CA: CNS development- effects of neuronal milieu on structure & function.
- 1998 American Epilepsy Society meeting, San Diego, CA: Optimal Therapy for Infantile Spasms- the role of ACTH and steroids.
- 1999 International Merritt-Putnam Symposium on Temporal Lobe Epilepsy, Los-Angeles, CA: Do febrile seizures induce neuronal death & limbic epilepsy?
- 1999 Spring Epilepsy Conference, Cayman Islands: Febrile Seizures, what do they do to the developing hippocampus?
- 1999 American Epilepsy Society, Children's hour SIG co-organizer, Platform presentation, Orlando: Long-term consequences of febrile seizures in the immature rat model.
- 2000 Society for Pediatric Research / American Academy of Pediatrics conjoint meeting, Keynote speaker, State-of-the-Art plenary symposium, Boston: Neurobiology of early life stress.
- 2000 Harvard Medical School, visiting professor and seminar: Laboratory approaches to clinical conundrums related to febrile seizures and temporal lobe epilepsy.
- 2000 Oslo Univ Institute of Basic Medical Sciences, International Symposium, Nature and Nurture in Epilepsy, Norway: Nature and Nurture in Febrile Seizures.
- 2000 Institute of Anatomy, Freiburg, Germany: The impact of prolonged febrile seizures on developing hippocampus.
- 2000 Humboldt University, Dept. Physiology, Berlin, Germany: Structural and functional effects of prolonged febrile seizures on immature hippocampal neurons.
- 2000 1st Intl Symp on Infantile Spasms, Pediatric Epilepsy Res Center, Seattle, WA: 'Mechanisms of ACTH actions: what do they teach us about mechanisms of brain excitability in IS?'
- 2000 National Child Neurology Meeting, Breakfast mini-Symposium, St Louis, MO: Do Febrile Seizures alter the developing brain? (with Dr. S. Shinnar).
- 2001 2nd Intl Symposium on Infantile Spasms, Keynote Speaker, Tokyo, Japan: Mechanisms of infantile spasms, the Excess CRH Hypothesis. Also: Genetic Approaches to Infantile Spasms' and 'Hormonal treatment for infantile spasms- American Views.

- 2001 NIH NINDS Workshop on Epilepsy & Epileptogenesis models: invited participant.
- 2001 CURE Epilepsy: NIH sponsored workshop on the use of animal models in preventing epilepsy, invited participant, Bethesda.
- 2001 Intl Workshop on potential use of Topiramate in Preventing Epilepsy. Nice, France.
- 2001 Mario Negri Neurosci Research Institute, Milan, Italy: The impact of prolonged experimental febrile seizures on structure and function in the developing hippocampus.
- 2001 Disease modification and prevention workshop: Topiramate, Philadelphia: Experimental prolonged febrile seizures as a model for prevention of epileptogenicity.
- 2001 International Neuropeptide Symposium, Jerusalem, Israel, Novel and transient populations of CRH expressing neurons in developing hippocampus.
- 2001 International conference: Do seizures damage the Brain? T. Sutula, A. Pitkanen, organizers. Rovaniemi, Finland.
- 2001 University of Pennsylvania Epilepsy Research Seminar Series: Cellular and Molecular Mechanisms of the Proepileptogenic effects of prolonged experimental febrile seizures.
- 2001 University of Pennsylvania Neurology Grand Rounds: Do prolonged febrile seizures cause temporal lobe epilepsy: From the clinic to the bench, and back.
- 2001 New Frontiers in Neuroendocrine Research Symposium, Weizmann Institute of Science, Rehovoth, Israel.
- 2001 Child Neurology Society, Invited contributor in two symposia, Victoria, British Columbia: Lecture topics: (1) Mechanisms of infantile spasms (2) The NIH wants you to get a grant.
- 2001 Rockefeller University, Neuroscience Seminar, New York: Functions of CRH in developing hippocampus: a double-edged sword?
- 2001 Montefiore Medical Center, Neurology/Neuroscience Grand Rounds: Do prolonged febrile seizures cause temporal lobe epilepsy? From the clinic to the bench- and back.
- 2001 Montefiore Medical Center/Albert Einstein College of Medicine, Child Neurology Grand Rounds: The Etiology and pathophysiology of infantile spasms: some unifying thoughts.
- 2001 Albert Einstein College of Medicine, New York: The impact of prolonged experimental febrile seizures on hippocampal neurons: Structure, function, channels.
- 2002 Oregon Health State Univ and Vollum Institute, Portland, visiting professor and seminar: Corticotropin releasing hormone in developing hippocampus: a double-edged sword?
- 2002 Dow Research Institute, Neuroscience Dept: Consequences of Prolonged Experimental Developmental Febrile Seizures on hippocampus: Structure, function, channels.
- 2002 Kuopio International Epilepsy Symposium, Keynote Speaker: Do febrile seizures cause temporal lobe epilepsy? From the clinic to the lab- and back.
- 2002 Virtanen Institute Neurosci Seminars: Stress and your hippocampus: a double-edged sword?
- 2002 Spring Hippocampus Research Conference, Cayman Islands: Symposium organizer and speaker: Molecular targets of neuronal plasticity.
- 2002 Epilepsy Symp and workshop, the Cleveland Clinic: Update in Pediatric Epilepsy Research.
- 2003 Keynote Speaker: conjoint Israeli league against Epilepsy and Child Neurology meeting, Tel Aviv, Israel.
- 2003 Spring Epilepsy Research Meeting, Grand Cayman: HCN channelopathy in human and experimental epilepsy.
- 2003 Mediterranean Institute for Neuroscience Research (INMED; Prof. Y. Ben-Ari), Marseilles: Impact of prolonged experimental febrile seizures on the developing hippocampus.
- 2003 INSERM 405, Strasbourg, France: Long-term effects of early-life stress: role of CRH.
- 2003 Anatomical Institute, University of Freiburg, Germany: Mechanisms of stress-induced hippocampal plasticity.
- 2003 Dept. Epileptology and Neuropathology, Bonn University, Germany: Do prolonged febrile seizures cause hippocampal epilepsy? Facts, myths and mechanisms.
- 2003 Spring Neuropeptide Conf, Montauk, NY: The CRH hippocampal synapse.

- 2003 Neuroendocrine Society National Meeting, Philadelphia: Long-term consequences of early-life stress, role of CRH.
- 2003 Second International Workshop on Epileptogenesis, Ferrara: How does fever cause seizures? The role of interleukins.
- 2003 Dartmouth Neuroscience Institute, Hanover, NH: Stress and your hippocampus.
- 2003 North New England Neurological Society, Annual meeting; Keynote Speaker: Do febrile seizures cause temporal lobe epilepsy?
- 2003 Society for Neuroscience, Neurobiology of Disease Workshop, New Orleans (developmental Animal models, with John Swann).
- 2003 American Epilepsy Society, Boston: Investigators Workshop (Acquired Channelopathies): HCN channel plasticity in Epilepsy.
- 2004 Baylor Col of Med, Houston. Symposium Honoring Dr. MA Fishman, Keynote speaker: How Early-life Stress Changes Your Brain...Molecules, Mechanisms and Neuroplasticity.
- 2004 Washington University, Seattle: Developmental Neuroscience / child neurology seminar: Stress and your hippocampus- neuroplasticity and mechanisms.
- 2004 Washington University, Seattle: Epilepsy Seminar Series (Harborview): So prolonged febrile seizures cause epilepsy? Mechanisms, channels, neuroplasticity.
- 2004 Summer Neuropeptide International Conference, Miami, Florida, Symposium session organizer & Speaker: CRH and epilepsy- the state of the science.
- 2004 Society for Neuroscience meeting, San Diego, 8 presentations, invited press conference.
- 2004 University of Strasbourg, France: Can we see Epileptogenesis? MRI in experimental prolonged Febrile seizures.
- 2004 Munich, Germany, Max Planck Institute of Psychiatry: Corticotropin Releasing Hormone in hippocampal Neuroplasticity- what can we learn from the lab?
- 2004 Hamburg University, Germany: "Is temporal lobe epilepsy an acquired channelopathy?"
- 2004 AES meeting, Pediatric Highlights presentation, New Orleans: Epileptogenesis after experimental febrile seizures. Basic Science SIG: Neuropeptides and Epilepsy: corticotropin releasing hormone and infantile spasms.
- 2004 Tel-Aviv University: "Stress and your brain: a double-edged sword?"
- 2005 Emory University, Neuroscience Colloquia Neurology: Do seizures damage the young brain? Facts, myths and mechanisms.
- 2005 Emory University, Psychiatry/ Conte Center for Stress Research: CRH-evoked plasticity of hippocampal function- a bridge from Stress to Disease?
- 2005 Emory University, Neurology seminars/Grand Rounds: "Do prolonged febrile seizures cause temporal lobe epilepsy? From the clinic to the lab- and back.
- 2005 Third International "New Horizons in Pediatric Neurology" Symposium, Eilat, Israel: How do recurrent seizures influence your brain?
- 2005 Australian Epilepsy Society, Keynote Speaker, national meeting, Cairns: "Do prolonged febrile seizures cause temporal lobe epilepsy? From the clinic to the lab- and back."
- 2005 ESA-Merritt-Putnam Symposium, Cairns: Neuroplasticity after single vs. recurrent seizures.
- 2005 Edinburgh University, School of Molecular and Clinical Medicine, Edinburgh, Scotland: Early-life stress-evoked hippocampal neuroplasticity.
- 2005 Royal College of Surgeons, Molecular Medicine Research Cente,r Ireland: Hippocampal neuroplasticity after developmental seizures: structure, function, channels.
- 2005 Dublin University School of Medicine, Dublin: Is Temporal Lobe Epilepsy caused by prolonged Febrile seizures?
- 2005 Summer Neuropeptide Symposium, Miami: Peptide induce neuroplasticity session. The role of CRH-in stress-evoked dendritic atrophy.
- 2005 Workshop on Neurobiology of Epilepsy (WONOEP VIII), France: "Mechanisms of epileptogenesis after experimental febrile seizures: What's so special?"

- 2005 Intl INMED conference on Nature and Nurture in Brain Dev (Y Ben-Ari, organizer) La Ciotat: "Mechanism of stress-evoked neuroplasticity in developing hippocampus."
- 2005 Society for Neuroscience- 7 presentations, Washington DC.
- 2005 American Epilepsy Society- Plenary Symposium, "Stress & Epilepsy" organizer and speaker. Investigator Workshop: "Imaging in Epileptogenesis", speaker, inflammatory mediators in Epilepsy: moderator and speaker. Washington DC.
- 2005 National EpiFellows Intensive course, speaker (Epilepsy 2005). Washington DC.
- 2006 New Perspective in Epilepsy symposium, Keynote Speaker, Shaare Zedek Med Center, Jerusalem, Israel.
- 2006 Washington University, St Louis, <u>Goldring visiting professorship</u>, "Do Febrile seizures cause temporal lobe epilepsy? Lessons from the laboratory."
- 2006 Barrow Neurological Institute: visiting professor and seminar: Epileptogenesis following experimental febrile seizures: mechanisms and channels."
- 2006 Neuroscience Institute of the Mediterranean (INMED), Marseille, France: Developmental plasticity of the /hcn channels.
- 2006 Dutch Neuroscience Meeting Endo-Neuro-Psycho (ENP), invited keynote speaker, Doerwoorth, Holland: 'determinants of epileptogenesis early in life.
- 2006 Visiting prof and Masterclass instructor: Univ of Amsterdam and Neurosciences Institute.
- 2006 European Congress of Epileptology: Neurobiology symposium: MRI as a marker of epileptogenesis after febrile seizures".
- 2006 University of Leiden, Netherlands, Medical Pharmacology (R. deKloet, host): Early-life programming of the hypothalamic-pituitary adrenal axis.
- 2006 Pacific Rim Neuroscience Conference, Brisbane, Queensland, Australia: Role of ion channel dysfunction in developmental epilepsies after Febrile Seizures.
- 2006 Society for Neuroscience meeting, symposium organizer and speaker, Atlanta, GA: Stress and neuronal excitability, the role of CRH.
- 2006 NIH, NINDS workshop. Models in epileptogenesis, invited contributor.
- 2007 Brain Center Seminar, Tel-Aviv University School of Medicine, Israel: How Does the Normal Brain Become Epileptic? from the Clinic to the Laboratory- and Back."
- 2007 Dept of Peds Grand Rounds, Kaplan Hospital Affiliate of the Hebrew Univ, Rehovoth, Israel: "Early-life experience governs the response to stress throughout life: molecules and mechanisms."
- 2007 American Epilepsy Society: (1) Stress, CRH and Infantile Spasms, (2) What can we learn from models of Febrile Seizures?
- 2007 International Workshop on Developmental Epilepsy, Rome.
- 2007 NIH NINDS "Curing Epilepsy" symposium: invited contributor.
- 2007 10th international symposium on Infantile Seizures, Tokyo.
- 2007 25 years of CRH: Symp organized by the Endocrine Society, one of three Invited speakers.
- 2007 IBRO International Congress, Melbourne, Australia, symposium organizer and speaker: Febrile seizures and epilepsy: what is the link?
- 2007 NIH NIMH workshop on Stress and Cognition, invited contributor: Early life stress effects on hippocampus mediated learning and memory: mechanisms.
- 2007 International course on Epilepsy San Servolo (Venice), Italy, 2 invited lectures.
- 2007 International Neurobiology of Disease symposium, Weizmann Institute of Science, Israel: Do Febrile seizures cause epilepsy? From the clinic to the lab, and back.
- 2007 Hotchkiss Brain Institute, Calgary, Canada: Novel mechanisms of stress-induced hippocampal dysfunction.
- 2007 Neuroscience Seminar Series, Calgary School of Medicine: febrile seizures and epilepsy, lessons from the laboratory.
- 2007 American Epilepsy Society meeting, Symposium co-organizer and speaker, Philadelphia: Inflammatory mediators in Febrile Seizures and their consequences.

- 2007 Neuroscience colloquia, Beer-Sheba University School of Medicine, Israel: Epileptogenesis after Febrile Seizures- an HCN channelopathy?
- 2008 Winter Conference on Brain Research, Invited symposium presenter, Snowbird, Utah: Programming of the Neonatal brain, molecules and Mechanisms.
- 2008 International Conference on Neuronal Signaling, Asilomar, CA.
- 2008 Columbia University Neurological Institute of New York: "Do Prolonged Febrile Seizures Cause Temporal Epilepsy? From the Clinic to the Lab and Back."
- 2008 International Meeting on Febrile Seizures, Shiga University Japan: "Fever, Febrile Seizures and Epilepsy: Lessons from the Laboratory."
- 2008 American Neuroendocrine Society meeting, San Rafael, CA: Stress workshop: Programming of the HPA axis by early-life experience."
- 2008 University of Bonn Med Center, Bonn, Germany: "Novel mechanisms of stress-induced disintegration of dendritic spines: live imaging and cognitive consequences".
- 2008 1st International Epilepsy Colloquium, Marburg, Germany: "Febrile seizures and mesial temporal lope epilepsy (MTLE)."
- 2008 Max Planck Inst of Psych, Munich: "Rapid loss of dendritic spines after stress involves derangement of spine dynamics by corticotropin-releasing hormone."
- 2008 Ludwig-Maximilians University, Munich, Germany: "Multiple regulatory levels of hippocampal HCN Channels: relevance to health and disease."
- 2008 The Chaim Sheba Medical Center, Tel-Hashomer, Israel: "Seizures, inflammation, and cognitive changes: Mechanisms and MRI Biomarkers."
- 2008 The Chaim Sheba Medical Center, Tel-Hashomer, Israel: "Enigmas in febrile seizures: Old questions and new answers."
- 2008 The Gordon Conference on Excitability and Epilepsy, Colby, ME: Multiple regulation levels of the HCN channels.
- 2008 Berlin, European Congress on Epileptology, Merritt-Putnam Symposium: Inflammation in Fever and, Febrile Seizures."
- 2008 SfN: Press Conference presenter: Stress and You brain (& 9 posters).
- 2008 Am Epilepsy Soc Annual Mtg, Seattle, 2 Symposia: Ion channels Traffic Jams in Epilepsy (organizer), and: Animal Models of Seizures and Epilepsy: good, bad & ugly (speaker).
- 2008 Tel-Aviv University Adam Super Neuroscience Center Seminar Series: Fever, Febrile Seizures and Epilepsy.
- 2009 NIMH Comparative Development Conference: Early-life stress & hippocampus.
- 2009 4th Fred Epstein International Symposium on New Horizons in Pediatric Neurology, Israel: Do Febrile Seizures cause temporal lobe epilepsy: animals studies."
- 2009 The Hebrew Univ of Jerusalem Dept of Neurosci, Jerusalem: "The hyperpolarization-activated (HCN) channels in hippocampus: regulation, trafficking, and role in health and disease."
- 2009 German Neurosci conference, invited symposium: Stress and Cognition: the role of CRH.
- 2009 Society for Research in Child Development: Symposium, invited speaker: Bi-directional effects of early-life stress on cognitive function. Denver, CO.
- 2009 Northwestern University Neuropharmacology/ Neuroscience seminar: Stress and your brain: spines, sunapses, mechanisms.
- 2009 INSERM U 751 and Hospital Timone, Marseille, France: Do Febrile Seizures cause Temporal lobe epilepsy?
- 2009 International Epilepsy Congress, centennial meeting, Budapest, invited speaker: Plenary Session. How does the brain become epileptic.
- 2009 Brain programming conference, Philadelphia, co-organizer and speaker: Brain programming after early life stress.
- 2009 FENS/IBRO summer school on stress, Rhodes, Greece, invited lecturer/teacher: Mechanisms of the cognitive consequences of chronic early-life stress: Novel molecules and signalling cascades.

- 2009 Child neurology society symposium, Louisville, Kentucky, organizer and speaker: Stress and the Developing Brain.
- 2009 Society for Neuroscience, NIMH symposium on early life stress, Chicago, Illinois.
- 2009 American Epilepsy Society, Boston, Massachusetts, 2 presentations.
- 2010 Neurobiology Seminar Series, University of Alabama Birmingham: "How does the brain become epileptic? plasticity, epigenetics, ion channels." Birmingham, AL.
- 2010 Neurobiology Special Seminar, Weizmann Institute of Science, invited speaker: "The NeuroSymphony of Stress." Rehovot, Israel.
- 2010 Clinical Neuroscience Grand Rounds, Yale Univ, New Haven, Connecticut: "How does the brain become epileptic? mechanisms, ion channels and epigenetics."
- 2010 Kuna Abroms Pediatric Neurology Symposium, Boston Medical Center, Boston, Massachusetts, Guest speaker: "How does the developing brain become epileptic?"
- 2010 The 16th Annual Henry I Russek Student Achievement Day, Keynote speaker and visiting mentor, Boston University: "Stress and your brain: memory, structure, and mechanisms."
- 2010 Infantile Spasms Summit, The Unique Mechanistic Properties of ACTH, New York: "ACTH, Melanocortin Receptors and Infantile Spasms."
- 2010 Anti-Epileptogenesis meeting NINDS, Bethesda, MD.
- 2010 Epilepsy and Depressive Disorders Conference, Chicago, IL: "Epilepsy, stress and depression: What are the biological mechanisms?"
- 2010 Immunity and Inflammation in Epilepsy, Co-organizer and speaker: "Febrile seizures, inflammation and epilepsy" and "Is there a role for inflammation in WestS?" Milan, Italy.
- 2010 Keynote Speaker, University of Amsterdam Epilepsy Day (Part of the Neuroscience Graduate Program Curriculum): "How does the brain become epileptic?"
- 2010 Rudolf Magnus Institute of Neuroscience, Utrecht, The Netherlands: "Epileptogenesis in the developing Brain: Mechanisms and biomarkers."
- 2010 Neurobiology and Ethology Dept Seminar, University of Haifa: "Stress and Your brain."
- 2010 Society for Neuroscience, San Diego, CA, Contributor to 9 posters
- 2010 American Epilepsy Society meeting, San Antonio, TX, Merritt-Putnam Symposium participant: The Brain and Seizures throughout life; Annual Course participant: Inflammation and Epilepsy; Investigators workshop: EpiGenetic in Epilepsy; SIG participations: 'Infantile spasms' and 'is cell death required for epileptogenesis in the developing brain.'
- 2011 Neuroscience Program Seminar Series, Univ of CO Denver: 1) "Multiple levels of regulation of hyperpolarization-activated (HCN) channels in health and disease." 2) "ACTH treatment of infantile spasms." 3) "Stress and the developing brain: good, bad and important!"
- 2011 Mol Neurosci Forum, Weizmann Institute of Science, Rehovot, Israel: "Funny" channels: Regulation of the hyperpolarization-activated (HCN) channels in health and disease."
- 2011 FEBSTAT meeting, New York: "Integrating human and animal research of febrile status epilepticus and its consequences."
- 2011 Spring Hippocampal Research Conference, Verona, Italy: "How modern-life stress impacts Memory: novel mechanisms."
- 2011 Epileptogenesis meeting, Emory University, Atlanta, GA.
- 2011 Tel-Aviv University Sheba Medical Center, Israel, Neuroscience seminar: How does the brain become epileptic? from the clinic to the lab- and back.
- 2011 Workshop on Neurobiol of Epilepsy (XI WONOEP), Italy: "NRSF mediated epigenetic mechanisms of ion channel dysfunction in experimental temporal lobe epilepsy".
- 2011 Epilepsy Grand Rounds, Univ Hospitals Case Med Center, Cleveland, OH: "Temporal Lobe Epilepsy and prolonged Febrile Seizures: Hot new information..."
- 2011 American Neurological Assoc 136th Annual Meeting, San Diego, CA, two presentations: (1) Soriano Lecture for the President's Symposium: Epilepsy through the Ages, "How Does the Developing Brain Become Epileptic?" (2) Epilepsy-SIG Symposia: Conversion of Normal Neurons into Epileptic Ones by Transcriptional Master Switches: Therapeutic Opportunities.

- 2011 Grand Rounds, Medical University of South Carolina, Charleston, SC: "Febrile Seizures and TLE: Hot new findings."
- 2011 Twenty-Seventh International Neurotoxicology Conference, Research Triangle Park, NC: "Inflammation, Seizures and Epilepsy."
- 2011 Society for Neuroscience, Washington, DC, (1) Co-Chair: Epilepsy Social: A window into the brain (2) contributor and presenter of seven posters.
- 2011 American Epilepsy Society meeting, Baltimore, MD, contributor and presenter
- 2011 INSERM/ Institute of Neurobiology of the Mediterranean (INMED), Marseille, France: "From ion channels to 'master keys' for the mystery of epileptogenesis."
- 2012 Columbia University Department of Neuroscience, New York: "Multiple levels of HCN channel regulation in health and disease."
- 2012 Neurology Grand Rounds, Montefiore Medical Center/Albert Einstein College of Medicine, New York: "How does the brain become epileptic? From the clinic to the lab-and back."
- 2012 5th Fred Epstein International Symposium on New Horizons in Pediatric Neurology, Israel: "How does the pediatric brain become epileptic?"
- 2012 University of Illinois Neuroscience Program, Urbana, Illinois: "How does the brain become epileptic? Genes, channels, plasticity and master switches."
- 2012 West Virginia University Center for Neuroscience, West Virginia, VA, two presentations: "Regulation of HCN channels in health and disease" and "How modern-life stress affects your brain: mechanisms, dendritic spines, memory."
- 2012 10th Dutch Endo-Neuro-Psycho Meeting, Lunteren, The Netherlands, two presentations: Differential activation of brain networks by complex versus simple stress underlies distinct effects on learning and memory" and "From mother's love to baby's future: fragmented vs consistent maternal care differentially sculpt neuronal networks and gene expression in the developing brain."
- 2012 Neurobiology of Stress Workshop 2012, Philadelphia, PA, "Synaptic 'rewiring' of stressprocessing neurons: the signal to activate epigenetic machinery?"
- 2012 10th International Course on Epilepsy: Management of Seizures and Epilepsies among Neonates and Infants, San Servolo, Venice, Italy, two presentations: (1) Properties of neonatal and developing brain" (2) "Febrile seizures significance and management."
- 2012 The Gordon Research Conference on Mechanisms of Epilepsy & Neuronal Synchronization, Waterville Valley Resort, Waterville Valley, NH, Invited speaker: "Constructing 'epileptic neurons': A role for epigenetic mechanisms."
- 2012 EPFL SV FSS 2012 Frontiers in Stress and Cognition: From Molecules to Behavior, Ascona, Switzerland, Special Lecture presentation: "How does chronic early-life stress program molecules, neurons and cognitive functions in adult hippocampus?".
- 2012 Society for Neuroscience, New Orleans, LA: (1) Guest: Epilepsy Social (2) contributor to seven posters.
- 2012 41st Annual Child Neurology Society Meeting, Hyatt Huntington Beach Resort, Huntington Beach, CA, "Re-engineering the Epileptic Developing Brain: Future Approaches to Therapy."
- 2012 Am Epilepsy Soc, San Diego, CA: Symp Co-Chair, Platform presentation and concluding remarks: "Does FSE Cause TLE Even without Predisposing Factors, and if so, How".
- 2013 Tel Aviv University, invited speaker: "How does the brain become epileptic? From the clinic to the lab- and back".
- 2013 NINDS Grand Rounds, Bethesda, Maryland: "How Does the Brain Become Epileptic? Channels, Neurons, and Circuits".
- 2013 American Academy of Neurology (AAN) 65th Annual Meeting, San Diego, CA: "The Protean Nature of Epilepsy and Its Mechanisms" and "Challenges and Future Steps: Basic Science and Clinical".
- 2013 University of Virginia School of Medicine, Charlottesville VA: E. W. Lothman Memorial Lecture, "How does the brain become epileptic? From the clinic to the lab- and back".

- 2013 Fifth Parental Brain Conference, Regensburg, Germany: "How maternal signals 'rewire' baby's brain and influence cognitive and emotional outcomes".
- 2013 Center for Molecular Neurobiology Hamburg (ZMNH) seminar, University of Hamburg, Hamburg, Germany: "Modern-life stress and your synapses: novel molecules and mechanisms".
- 2013 Neuroscience Grand Rounds, University of Vermont, Burlington, VA: "How does the brain become epileptic? From the clinic to the lab, and back".
- 2013 The Center of Biomedical Research Excellence (COBRE) in Neuroscience, University of Vermont, Burlington, VA: "Early-life experience, neuronal 'programming' and cognitive vulnerabilities".
- 2013 45th European Brain and Behaviour Society (EBBS), Munich, Germany:" How does a neuron know to turn on its epigenetic machinery?"
- 2013 BioDynamics 2013, Bristol, UK: "Rhythms and patterns that shape the developing brain".
- 2013 Tel-Aviv Univ, Israel: "The future of Child Neurology: 're-engineering the injured pediatric brain".
- 2013 Bernard Sachs Award, Annual Meeting of the Child Neurology Society (CNS), Austin, TX: "Shaping the 4-dimensional brain".
- 2013 5th International Meeting West Syndrome Foundation, Madrid, Spain, two presentations: "Treatment of West syndrome; from ACTH to the future" and "Therapies of the future: Reengineering the developing epileptic brain".
- 2013 Society for Neuroscience, San Diego, CA, (1) Session Chair and presenter: "How does the brain become epileptic: master switches and large-scale changes in gene expression" (2) Guest: Epilepsy Social (3) contributor to six posters.
- 2013 Conte Colloquium on Mental Health, Harvard University, Cambridge, MA: "How maternal signals 'rewire' baby's brain to influence cognitive and emotional outcomes".
- 2013 Science of Adversity and Resilience (SAR) meeting, Harvard University, Cambridge, MA: "Shaping the 4-dimensional brain".
- 2013 American Epilepsy Society, Washington, DC, Special Interest Group Meetings speaker, contributor to four posters.
- 2013 American College of Neuropsychopharmacology (ACNP), Hollywood, Florida, Panel Session presenter: "Epigenetic pathways during early postnatal life: how does a neuron "know" to modulate its epigenetic machinery in response to early-life experience?"
- 2014 Neuroscience Institute Seminar series, Georgia State University, Atlanta, GA: "Modern life stress and your brain: memory, synapses, mechanisms".
- 2014 Pediatric Grand Rounds, New York Medical College, Tarrytown, NY: "How does the pediatric brain become epileptic?"
- 2014 McGill University Research Institute, Montreal, Canada: "How does a neuron know to turn on epigenetic mechanisms in response to early life experience?"
- 2014 McGill University Neurological Institute, Montreal, Canada: "How does the brain become epileptic?-from the clinic to the lab- and back".
- 2014 66th American Academy of Neurology (AAN) Annual Meeting, Philadelphia, PA: What are the causal relationships of Febrile Seizures/FSE and Temporal Lobe Epilepsy? Challenges and emerging answers?
- 2014 Neurobiology of Stress Workshop, Cincinnatti, OH: Session Chair, "Stress, memory and molecules: a rapidly evolving field".
- 2014 Amsterdam Brain and Cognition (ABC) Summer School, Amsterdam, The Netherlands: "Early life experience, maternal care and programming of the brain".
- 2014 ABC Symposium Early Life Experiences: From Genes to Cognition, Amsterdam, The Netherlands: "Neuroplasticity, epigenetic programming and cognition following early-life experience."
- 2014 International Congress of Neuroendocrinology (ICN) 2014, Sydney, Australia: "How does a neuron 'know' to modulate its epigenetic machinery following diverse early-life experiences?"

- 2014 29th Philip R. Dodge Lecture, Washington University, St. Louis, MO: "How does the brain become epileptic? From the clinic to the lab-and back."
- 2014 Matty Siravo Memorial Lecture, Brown University, Providence, RI: "The child's brain in four dimensions..."
- 2014 Society for Neuroscience, Washington DC: contributor of three posters.
- 2014 American Epilepsy Society, Seattle, WA, 1) Investigators' Workshop, Moderator, 2), Merritt-Putnam Symposium, speaker: "The neurobiology of stress: how stress and epilepsy intersect at the synapse".
- 2015 Winter Conference on Learning and Memory, Park City, UT: "Essential role for dorsal hippocampus CA1 for spatial memory: the lesson from stress."
- 2015 Alberta Children's Hospital, Calgary, Canada: "Can we predict and prevent epilepsy after Febrile Status Epilepticus".
- 2015 University of Calgary, Calgary, Canada: "How high-entropy, chaotic life experience drives adolescent cognitive and emotional vulnerabilities".
- 2015 Mount Sinai University, New York, NY: "How diseased neurons are created: novel mechanisms".
- 2015 University of Maryland, Baltimore, MD: "Early-life experience and vulnerability to mental disorders: novel mechanisms".
- 2015 University of Utah, Anticonvulsant Drug Development (ADD) Program Symposium, Park City, UT: "Epigenetic targets for Epilepsy / seizure prevention".
- 2015 Spring Hippocampal Research Conference, Taormina, Sicily: "Constructing an epileptic hippocampus: an orchestra with conductor(s)".
- 2015 Max Planck Institute for Psychiatry, Munich, Germany: "Programming the developing brain: where neurobiolgy, mathematics and epigenetics intersect".
- 2015 Human Brain Project/ Blue Brain Project, Geneva, Switzerland: "Do rhythms and entropy levels of early-life experiences contribute to brain circuit development?"
- 2015 École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland: "Modern life stress, can your brain-networks handle it?"
- 2015 25th Meeting of the International Society for Neurochemistry (ISN), Cairns, Australia: 2 presentations "Epigenetic regulation of HCN Channels: a window into neuroplasticity" and "Mechanisms of cognitive vulnerability to stress: synapses, spine and a symphony of mediators."
- 2015 28th European College of Neuropsychopharmacology (ECNP) Congress, Amsterdam, The Netherlands: "Neural correlates of chronic early-life stress."
- 2015 Janelia Conference on Behavioral Epigenetics, Howard Hughes Medical Institute, Virginia: "Synaptic rewiring & epigenetic programming of stress-responsive neurons by early-life experience".
- 2015 44th Child Neurology Society (CNS) Annual Meeting, Washington, DC, 1) Co-organizer, 2) Session Co-Director and Moderator, 3) Speaker: "From developmental neurobiology to therapeutic strategy."
- 2015 Society for Neuroscience, Chicago, IL: contributor of six posters.
- 2015 Swebilius Lecture, Yale University, New Haven, CT: "How might the brain become epileptic? from the clinic to the lab-and back."
- 2015 Yale University Epilepsy Comprehensive Research Retreat, Madison, CT: 1) General Discussion and Day One Summary Moderator, 2) Final Discussion Moderator.
- 2015 University of Bristol, 2015 Colston Research Society Symposium, Bristol UK: "Do the origins of early-life stress explain its complex relationship to PTSD?"
- 2015 American Epilepsy Society (AES) 69th Annual Meeting, Pensylvania, PA: Poster Session Tour Leader and contributor of two posters.
- 2015 American College of Neuropsychopharmacology (ACNP) 54th Annual Meeting, Hollywood, FL: contributor of two posters.

- 2015 Israel Society for Neuroscience (ISFN) 24th Annual Meeting, Israel: "Mechanisms of cognitive vulnerability to stress: synapses, multiple mediators and tricky transgenics".
- 2016 UCB Biopharma SPRL, Braine l'Alleud site, Brussels, Belgium: "How do neuronal networks arise? Targets for intervention" and "ACTH in infantile spasms relevance to current studies".
- 2016 Current Issues Clinical Neuroscience 2016 Masterclass, Utrecht University, The Netherlands, "How stress and epilepsy intersect".
- 2016 Neuropeptides from Bench to Bedside, Rouen, France: "CRH receptor blockers to prevent stress-induced seizures in epilepsy".
- 2016 International Regulatory Peptide Society (RegPep), Rouen, France: "The complex effects of modern-life stress on learning and memory: role of hippocampal CRH".
- 2016 Gordon Research Conference on Mechanisms of Epilepsy & Neuronal Synchronization, Girona, Spain: "Circuit and cellular dysfunction contribute to cognitive impairment after febrile status epilepticus".
- 2016 "Immunty and Inflammation in Epilepsy", Milan, Italy, October 13-15, 2016
- 2016 Brain Research Center, Bar-Ilan University, Israel: "How early-life experience shapes your brain: signals, synapses, programs, behavior" 12/19/16

B. State and local:

- 1995 University of California, Irvine (UCI) Pediatric Resident Conference: "The Ketogenic Diet as a tool in Epilepsy, principles and use".
- 1995 UCI Clinical Neurosci Grand Rounds: "Infantile spasms as a model of an age-specific epilepsy".
- 1995 Neuroscience Symposium, UCI Medical Student Retreat, La Quinta, CA: "The last frontier: Solving the brain's enigmas."
- 1995 UCI-Miller Children's Hospital Pediatrics Conference series, Long Beach, CA: "The ketogenic diet as an anticonvulsant for intractable epilepsy in children".
- 1995 Miller Children's Hospital-UCI Grand Rounds: "Infantile Spasms: Update for 1995."
- 1995 UCIMC Pediatrics Grand Rounds: "Infantile Spasms- What's old and what's new."
- 1995 UCIMC Neurosci Grand Rounds: "Peculiar laughter- Elastic Epilepsy in children and adults."
- 1996 Psychobiology & Aging Seminar series, UCI: "Developmental Neurobiology of stress-Relevance to Aging".
- 1996 Peds conference series, UCIMC: "Approaching the patient with Neurological concerns".'
- 1996 MD/PhD Scientist/role model lecture, UCI: "CRH: from the clinic to the lab, and back."
- 1996 Pediatrics Grand Rounds, UCIMC, Orange: "Ketogenic diet as an anticonvulsant".
- 1996 Loma Linda University Grand Rounds Seminar: "Infantile Spasms: Research & Management".
- 1996 Orange County Children's Services Bi-Annual OT/PT Conference. Guest Speaker: "The Ketogenic Diet in children with intractable epilepsy".
- 1996 Research Institute, Children's Hospital Los Angeles: First Annual conference: "Phase I study of CRH antagonist in Adult Volunteers".
- 1996 Hoag Hospital Pediatrics Symposia: "How do we manage seizures in the office?"
- 1997 UCI Pediatrics Grand Rounds: "Pediatrician's Guide to Seizure Management".
- 1997 Peds Resident / Fellow conf, UCI: "Theory and practice of the KD for intractable epilepsy".
- 1997 UC San Francisco, Neurosci seminars: "Experimental and Clinical update of Massive Infantile Spasms".
- 1997 UCI Peds Resident Seminar: "Migraine headaches in children; diagnosis and management".
- 1997 UC San Diego Neuroscience Seminar Series: "Infantile spasms as a model for non-genetic developmental epilepsies".
- 1997 UC Los Angeles, Western US Mental Retardation Research Ctr Conf: "Potential mechanisms of Mental retardation in infantile spasms: can we alter the cognitive outcome?"

- 1997 Huntington's Memorial Hospital, Pasadena, CA, Pediatrics Grand Rounds: "Management of seizures in infants and children: when and how?"
- 1997 Epilepsy Foundation of America UCI joint Symposium, Irvine, CA: "Epilepsy in children and adults". Co-chair and two invited talks.
- 1997 The UCI-Miller Children's Hospital Residency Lecture Series, Long Beach, CA: "Practical Primer for the Ketogenic Diet, and the UCI experience".
- 1997 UCI Pediatric Residency Seminars: "The Ketogenic Diet: Mystique, Myths & Reality".
- 1998 USC, Los Angeles, Neurobiology Seminar Series: "Mechanisms of Stress-induced gene regulation in the developing brain".
- 1998 Neurobiology Seminar Series, UCI: "The developmental Neurobiology of Stress- regulation of stress-responsive genes in the developing hypothalamus and cortex."
- 1998 New Horizons in Pediatrics Seminar Series: "Febrile seizures: Hot new findings".
- 1998 Growth Factor seminar series, Physiology & Molecular Biology, UCI: "Stress Signaling during development: From Hormone secretion to gene regulation".
- 1998 UCIMC: Pediatric Resident Lecture series: History and exam of the 'Neuro-kid'.
- 1998 Huntington Memorial Epilepsy program, Pasadena; Epilepsy Seminar Series: "Novel Clinical & Experimental approaches to Febrile Seizures".
- 1998 USC, Los Angeles: visiting professor: "What is the rationale for using CRH antagonists for infantile spasms?"
- 1999 UC Los Angeles, Neuroscience Seminars: "Hippocampal and amygdalar neuronal injury induced by febrile seizures: findings using the immature rat model".
- 1999 UCI Pediatric Residency Seminar: "The ketogenic diet, principles and practice".
- 1999 UCI Pediatrics Grand Rounds: "Infantile Spasms: treatment options in 2000 and beyond".
- 1999 UC Davis, Neuroscience conference: "Experimental approaches to the mechanism and consequences of Febrile seizures".
- 1999 UC Davis Pediatrics Grand Rounds: "Infantile Spasms: update for the new millennium".
- 1999 UCIMC, Resident Lecture series: "History and exam of the child with neurological issues".
- 1999 UCI Grand Rounds Pediatrics: "Genetics of the Inherited Epilepsies: a progress report".
- 1999 UCIMC, Orange, Peds Resident Lecture: The ketogenic diet for intractable epilepsy.
- 1999 Molecular Biology, Genetics & Biochemistry graduate program, UCI presentation: Neuronal excitotoxicity in the developing brain.
- 1999 USC, Cellular & Molecular Neurobiology Seminar Series: Structural and functional injury to hippocampal neurons by febrile seizures in the immature rat model.'
- 2000 UCI Peds Update Training series: Management of Seizures of Infants and children.
- 2000 Clinical Neuroscience update: 1st annual Van den Noort Symposium: Epilepsy intractability, definitions and management. National Academy of Sciences Beckman Center.
- 2000 UCI Peds Residency Seminar: The approach to the child with neurological issues
- 2001 Van den Noort Symposium II: The neuroscientific underpinnings of Epilepsy (moderator).
- 2001 UCI Learned Societies & Eminent professors' forum, "Can we prevent Epilepsy?"
- 2001 UCI Curriculum Pediatrics Residents: The Neurological History and Exam.
- 2001 Fountain Valley Medical Ctr: Ofc Management of Seizures in infants and children.
- 2001 Research Symposia series, Physiology & Biophysics, UCI: The impact of experimental febrile seizures on hippocampal neurons: structure, function, channels.
- 2001 Hoag Hospital, Newport Beach: Seizure management of infants and children.
- 2002 UCI Seminar Series Biol Chem: stress and your hippocampus- a double-edged sword?
- 2002 UCI Neurology/ Neurosurgery/ Neuroscience GR: "Stress and your Hippocampus."
- 2002 Neonatology course series: effects of neonatal stress on brain function.
- 2002 UCI Peds Resident Series: The approach to the child with neurological complaints.
- 2002 UC San Diego Neurosc lecture series: Do prolonged febrile seizures lead to Epilepsy?
- 2002 UCI Pediatrics Research Update: Febrile seizures: basic- clinical research interactions.
- 2002 UCLA Neuroscience/ Child Neurology Seminar: "stress and your hippocampus."

- 2002 UCI Center for Aging & Dementia: 'How does early-life stress influence hippocampal function and integrity during aging?'
- 2003 UCI Contemporary Neuroscience series: Do seizures damage the brain?
- 2003 First Annual EpiCenter Symposium, UCI: Transcriptional regulation of HCNs in experimental and human epilepsy.
- 2003 UCI lecture series for Pediatrics Residents: "The Neuro- kid."
- 2004 UCLA- Harbor Neuroscience / Neurology lectures: Do Febrile seizures cause Temporal Lobe Epilepsy? From the clinic to the lab- and back.
- 2004 The Research Associates (Donor/ support group of the UCI College of Medicine), Beckman National Academy of Sciences Center, UCI: "Stress and *your* brain."
- 2004 UC San Francisco, Developmental Neuroscience series: The impact of early-life stress on hippocampal cognitive function- role of CRH.
- 2004 Public Lecture: Mini Med School: "Stress and your brain- a double-edged sword."
- 2004 UCIMC Pediatrics core training course: The Neuro-kid.
- 2004 Pediatric resident core series: Management of Pediatric seizures.
- 2004 UCIMC Psychiatry Dept GR: Early-life stress and the neurobiology of depression.
- 2005 Second Southern California Pediatric Neurology colloquium, UC San Diego: Febrile seizures, an update for 2005.
- 2005 National Stress Network (P Wadhwah, organizer), Orange, CA: Ontogeny of the molecular components of the stress response.
- 2005 UCI Medical student colloquia: Clinical correlate of the temporal lobe.
- 2005 Thalamocortical oscillations in health and disease: Medical student basic science colloquia.
- 2005 Neuroscience GR: Late onset cognitive decline: New Clues.
- 2005 Neurology residents lecture series: Neurobiology of absence seizures.
- 2005 Pediatric Resident core lectures: Approach to the child with a neurological problem.
- 2005 Third Orange County Epilepsy Symposium. Keynote Speaker.
- 2005 Pediatric Resident core lectures: Management of seizures and other episodic phenomena.
- 2006 Aging and Dementia Research Center, UCI: Early cognitive decline after neonatal chronic stress.
- 2006 Neonatal-Perinatal Fellows forum UCI: "Neonatal seizures, what's behind them?"
- 2006 UCLA/Harbor Grand Rounds: How stress influences neuronal excitability.
- 2006 UCI Pediatric Resident series: The approach to the 'Neuro' kid.
- 2006 Stanford University Neurology/ Neurosciences seminar/ Grand Rounds: Do febrile seizures cause temporal lobe epilepsy? From the clinic to the lab, and back.
- 2007 UCI Medical student Clinical Correlations course temporal lobe and epilepsy.
- 2007 Clinical correlate: The thalamus and thalamocortical oscillations, UCI Medical students.
- 2007 UCI Pediatric Resident course: The approach to the child with a neurological complaint.
- 2007 UCI Neuroscience seminar series: Can we predict Epilepsy?
- 2007 Pediatric Resident series, UCI: Management of Seizures in children.
- 2008 Orange County Annual Epilepsy Symposium: "The different pathways to epilepsy."
- 2008 UC Office of the President, Speaker Series: "How does a normal brain become sick?: Lessons from Epilepsy."
- 2008 UCI Wellness lecture series: "Stress and your brain: a double edged sword."
- 2008 Garden Grove Hosp, Garden Grove, CA: "Febrile Seizures and Epilepsy: Update for 2008."
- 2009 UC San Diego: Neuroscience/ Neurology Grand Rounds: "Enigmas in febrile seizures, old questions, new answers."
- 2009 Loma Linda University, Neurology/ Neuroscience Grand Rounds: "Enigmas in Febrile Seizures: Old Questions and new answers."
- 2009 UC Riverside, Neuroscience seminars: Stress and your hippocampus: Memory, spines, mechanisms."
- 2009 UC Davis, Neurology Ground Rounds: "Do long febrile seizures cause epilepsy?"

- 2009 Physiology & Biophysics Seminar Series, UCI: Regulation of HCN Channels in health and disease.
- 2009 Institute for Mental Illness and Neurological Disease, UCI, seminar series: aging-related cognitive decline after early life stress: mechanisms and prevention.
- 2010 UCI Neurobiology and Behavior Colloquium, "Stress and *your* hippocampus: memory, mechanisms, spines."
- 2010 UCI ReMIND Emerging Scientist Symposium, Session Chair.
- 2010 UCI Minority Sci Program Theory and Research Seminar: "Stress and your brain."
- 2011 6th Annual UCI Epilepsy Symposium, Course Chair: "How does the brain become epileptic? New implications for diagnosis."
- 2011 UCI Neurology Grand Rounds: "The brain and epilepsy throughout the lifecycle: understanding a moving target."
- 2011 UCI ReMIND Emerging Scientist Symposium on Neurological Disorders, Session Chair.
- 2011 UCI EpiCenter Symposium: "How many genes/molecules are required to generate epilepsy?"
- 2011 UC San Diego, invited speaker: "Modern-life stress and *your* hippocampus: Molecules, mechanisms and dendritic spines."
- 2011 UCI Center for the Neurobiology of Learning and Memory's Fall Quarterly Meeting: From spines to memory: a stress story.
- 2011 UCI Medical Scientist Training Program (MSTP) Distinguished Lecture Series: "How does the brain become epileptic? From the clinic to the lab and back."
- 2012 ReMIND Emerging Scientist Symposium on Neurological Disorders, UCI, Session Chair.
- 2012 7th Annual UCI Epilepsy Symposium: "The brain and seizures throughout life: Understanding a moving target."
- 2012 UC Davis, Psychobiology Brown Bag Series: "How early-life experience programs your brain."
- 2012 Endocrine Grand Rounds, UCIMC: "How modern life stress affects your brain: (hint: it not your adrenal...)".
- 2012 2nd Annual Clinical, Basic & Translational Science Festival, UCI, Keynote Speaker: "How modern-life stress affects your thinking: (a journey to the lab, and back)".
- 2012 UCLA/Harbor Neurology Grand Rounds: "How does the brain become epileptic? From clinic to lab and back".
- 2012 CNLM Evenings to Remember: The Dale Melbourne Herklotz Lectures on the Neurobiology of Memory, UCI: "How modern-life stress influences your memory".
- 2013 Neuroscience Seminar, UCR, "How Does the Developing Brain Become Epileptic?"
- 2013 4th Annual ReMIND Emerging Scientists Symp on Neurological Disorders, UCI, Session Chair.
- 2013 8th Annual OC Clinical Epilepsy Symposium, Huntington Beach, CA: "Stress and Epilepsy".
- 2013 UCI EpiCenter Symposium: "Predictive biomarkers of temporal lobe epilepsy".
- 2013 Neurology Research on Epilepsy, UCI: "Imaging as a predictive biomarker in epilepsy".
- 2014 Pediatrics Grand Rounds, UC San Diego: "How does the pediatric brain become epileptic?"
- 2014 Research Seminar Series in Radiological Sciences, UCI: "Can we predict Epilepsy?"
- 2014 Dean's Quarterly Lecture Series, UCI Irvine Health: "Calming the tempest: bench discoveries leading to better therapies in Epilepsy".
- 2014 3rd International EpiCenter Symposium, Newport Beach, meeting organizer and speaker: "Transforming normal neurons into Epileptic ones via coordinate transcriptional regulation".
- 2014 9th Annual UC Irvine Health Epilepsy Symposium, "Breakthroughs in curing Epilepsy".
- 2014 13th Annual UCLA Integrative Center for Learning & Memory Annual Symposium, "Effects of modern-life stress on memory: mechanisms and molecules."
- 2014 Graduate College of Biomedical Sciences White Coat Ceremony, Western University of Health Sciences, Pomona, CA, Keynote Speaker.
- 2015 Neurology Grand Rounds, UCI: "Modern life stress: Can your brain handle it?"
- 2015 Allergan Conference, UCI: "A novel, non-invasive MRI signal is a predictive epilepsy biomarker".
- 2015 USC/CHLA seminar series, "Fever, febrile seizures and epilepsy: from the clinic to the lab and

back".

- 2015 Immunology Fair 2015, UCI: "Role of inflammation in the development of Epilepsy: Targets for intervention and prevention."
- 2016 UCI Ayala School of Biological Sciences Second Annual Faculty Retreat, Costa Mesa: "Successful science in 2020? Facts, fads, trends and themes."
- 2016 Neurobiology of Stress Workshop, Newport Beach, Chair and speaker: "CRH: a multifaceted stress neuropeptide".
- 2016 UC San Diego, Psychiatry Grand Rounds:: "Early Life Experience and Psychopathology: Emerging Mechanisms".
- 2016 UC Berkeley, Integrative Biology seminar: "How unpredictable, fragmented patterns of early-life sensory input shape synaptic connectivity and influence brain function enduringly".
- 2017 UC Riverside: 10th Annual Symposium on Glial-Neuronal Interactions in Health and Disease Program, "MicroRNA, Microglia, Neurons and Epilepsy: a multi-faceted story" 1/13/17