BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Jing-Qiong Kang, M.D., Ph.D.	Assistant Professor of Neurology
eRA COMMONS USER NAME (credential, e.g., agency login) kangj2	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Tongji Medical University, P.R. China	Associate	06-1986	Nursing
Hubei Medical University, P.R. of China	Undergraduate	07-1994	Medicine
Qingdao University, School of medicine, P.R.C.	Master	06-1998	Medicine/Neurology
Tongji Medical University, P.R. C.	MD, PhD	06-2001	Medicine/ Neurology
Wayne State University, Detroit, MI	Postdoc	2001-2002	Neurodegeneration
Vanderbilt University, Nashville, TN	postdoc	2002-2004	Neurophysiology
Vanderbilt University, Nashville, TN	Res Asst Prof	2005-2011	Neurology
Vanderbilt University, Nashville, TN	Asst Prof	2011-	Neurology

B. Positions and Honors

Positions and Employment

2001-2002 Post-doc Res. Fellow, Dept. of Neurology, Wayne State University, School of Medicine
2002-2004 Post-doc Res. Fellow, Dept. of Neurology, Vanderbilt University
2004-2005 Instructor, Dept. of Neurology, Vanderbilt University
2005-2011 Research Assistant Professor, Dept. of Neurology, Vanderbilt University
2011-now Assistant Professor, Dept. of Neurology, Vanderbilt University

Other Experience and Professional Memberships

2001- American Society of Neuroscience
2006- American Epilepsy Society

Honors and other experience

Honors and other experience

1997 The Outstanding Student Award of Qingdao University, School of Medicine
2006 Early career investigator award from CURE
2008 Invited speaker: Dravet syndrome research and clinical conference, Chicagochildren hospital
2009 Invited speaker in Shanghai Institute of Neuroscience, Chinese Science Academy (11-26-2009)
2009 Invited speaker in Tongji Hospital, Huazhong University of Science and Technology (10-20-2009)
2010: Dravet syndrome Research Award
2012 Invited speaker: 4thBiennial Conference of Dravet syndrome in Minneapolis (08-07-2012)
2012 Most distinguished speaker among previous awardees featured by the bimonthly newsletter of Dravet syndrome organization (08-17-2012)
2012 Invited reviewer for Journal Autism Research
2012 Invited reviewer for Italian Telethon Charity Foundation on monogenetic diseases (grant number:GGP12265)
2012 Guest speaker in Georgia Institute of Technology, Atlanta (09-07-2012)
2013 Invited speaker in 2013 AES meeting, Dravet Research roundtable
2013 Guest speaker in 2013 International neuronal regeneration symposium (Oct 31, Nantong Medical School, Nantong, China)
2013 Guest speaker in Qingdao University Medical School, China (Nov 11, 2013, Qingdao, China)
2013 Dec- Featured Neuroscientist in Vanderbilt Brain Institute, Vanderbilt University Medical Center

2014 Guest speaker in Fukuoka Medical School, Japan (June 9, 2014, Fukuoka, Japan)
2014 Guest speaker in Wuhan University School of Medicine (June 12, 2014, Wuhan, China)
2014- Editorial Board Member of Brain Disorders & Therapy
2015 Chair in 2015 American Epilepsy Society, Basic Mechanisms and Neuroscience Session (Dec 2015, Philadelphia)
2015 Invited speaker on GABAergic interneuron and epilepsy symposium, 2015 American Epilepsy Society, (Dec 2015, Philadelphia)
2015 Scientific Reviewer for CURE foundation award
2016 Chair for AES meeting symposium of Basic Mechanisms and Neuroscience in Houston

C. Selected Peer-reviewed Publications (Selected from peer-reviewed publications)

Most relevant to the current research

Articles in refereed journals: (total = 62 44 in English and 18 in Chinese)

Most relevant to the current research

1. Chong ZZ, **Kang J-Q**, Maiese K. Hematopoietic Factor Erythropoietin Fosters Neuroprotection Through Novel Signal Transduction Cascades. ***J Cereb Blood Flow Metab.*** 2002;22(5):503-514.
2. Chong ZZ, **Kang J-Q**, Maiese. Erythropoietin is a novel vascular protectant through activation of Akt1 and mitochondrial modulation of cysteine proteases. ***Circulation.*** 2002;106(23):2973-2979.
3. Chong ZZ, **Kang JQ**, Maiese K. Angiogenesis and plasticity: role of erythropoietin in vascular systems. ***J Hematother Stem Cell Res***. 2002; 11(6):863-71
4. Chong ZZ, **Kang JQ**, Maiese K. Erythropoietin fosters both intrinsic and extrinsic neuronal protection through modulation of microglia, Akt1, Bad and caspase-mediated pathways. ***Br J Pharmacol.*** 2003,138:1107-1118
5. Chong ZZ, **Kang JQ**, Maiese K. Apaf-1, Bcl-xL, cytochrome c, and caspase -9 form the critical elements for cerebral vascular protection by erythropoietin. ***J Cere Blood Flow Metab.*** 2003; 23:320-30
6. Chong ZZ, **Kang JQ,** Maiese K. Erythropoietin prevents early and late neuronal demise through modulation of Akt1 and induction of caspase 1,3 and 8. ***J Neurosci Res***. 2003; 71:659-69
7. Chong ZZ, **Kang JQ**, Maiese K. Erythropoietin:cytoprotection in vascular and neuronal cells. ***Curr Drug Targets Cardiovasc Haematol Disord***. 2003;3(2):141-145
8. **Kang J-Q**, Chong ZZ, Maiese K. Critical role for Akt1 in the modulation of apoptotic phosphatidylserine exposure and microglial activation. ***Mol Pharmacol,*** 2003; 64(3):557-69.
9. **Kang J-Q**, Chong ZZ, Maiese K. Akt1 protects against inflammatory microglial activation through maintenance of membrane asymmetry and modulation of cysteine protease activity. ***J Neurosci Res***. 2003;74(1):37-51
10. Chong ZZ, Lin SH, **Kang JQ**, Maiese K. The tyrosine phosphate SHP2 modulates MAP kinase P38 and caspase 1 and 3 to foster neuronal survival. ***Cell Mol Neurobiol***. 2003; 23:561-578
11. Chong ZZ, **Kang JQ**, Maiese K. Metabotropic glutamate receptors promote neuronal and vascular plasticity through intracellular pathways. ***Histology and Histopathology***. 2003;18:173-189
12. **Kang J-Q**, Macdonald RL. The $GABA_A$ receptor $\gamma 2$ subunit R43Q mutation linked to childhood absence epilepsy and febrile seizures causes retention of $\alpha 1\beta 2\gamma 2$ receptors in the endoplasmic reticulum**.** ***J Neurosci.*** 2004; 24:8672-8677
13. Macdonald RL, Gallagher MJ, Feng H-J, **Kang JQ**. $GABA_A$ receptor epilepsy mutations. ***Biochem Pharm.*** 2004; 68:1497-1506
14. Chong ZZ, **Kang JQ**, Maiese K. AKT1 drives endothelial membrane asymmetry and microglial activation through Bcl-xL and caspase 1, 3 and 9. ***Exp Cell Res.*** 2004; 296:196-207
15. Chong ZZ, **Kang JQ**, Maiese K. Essential cellular regulatory elements of oxidative stress in early and late phases of apoptosis in the central nervous system. ***Antioxid Redox Signal.*** 2004; 6:277-287
16. Chong ZZ, **Kang JQ**, Li F, Maiese K. mGluRI targets microglial activation and selectively prevents neuronal cell engulfment through Akt and caspase dependent pathways. ***Curr Neurovasc Res***. 2005; 2:197-211.
17. Feng H-J, **Kang J-Q,** Song L, Dibbens L, Mulley J, Macdonald RL. The δ subunit susceptibility variants E177A and R220H associated with complex epilepsy alter channel gating and cause endoplasmic reticulum retention of $\alpha 4\beta 2\delta$ $GABA_A$ receptors**.** ***J Neurosci.*** 2006;26: 1499-1506

18. **Kang J-Q,** Shen W, Macdonald RL. Why does fever trigger seizures?: $GABA_A$ receptor γ2 subunit mutations associated with idiopathic generalized epilepsies have temperature-dependent trafficking deficiencies. ***J Neurosci.*** 2006; 26:2590-2597, PMCID: 16510738 **[highlighted by Nature, Lancet Neurol, J Neurosci, VUMC reporter]**
19. Macdonald RL, **Kang J-Q**, Gallagher MG, Feng HJ. GABA(A) receptor mutations associated with generalized epilepsies. ***Adv. Pharmacol***. 2006; 54:147-67
20. **Kang J-Q (corresponding author),** Shen W, Macdonald RL. Two molecular pathways (NMD and ERAD) contribute to a genetic epilepsy associated with the $GABA_A$ receptor GABRA1 PTC mutation, 975delC, S326fs328X***. J Neurosci***. 2009; 29: 2833-2844.
21. **Kang J-Q (corresponding author)**, Shen W, Macdonald RL. The GABRG2 mutation, Q351X, associated with GEFS+ has both loss of function and dominant-negative suppression. ***J Neurosci***. 2009; 29: 2845-2856, PMCID: 19261880 **[highlighted by J Neurosci, VUMC reproter]**
22. **Kang J-Q (corresponding author)**, Macdonald RL. Making sense of nonsense GABAA receptor mutations associated with genetic epilepsies, ***Trends Mol. Med***. 2009; 15(9):430-8 PMCID: 19717338
23. Delahanty RJ*, **Kang J-Q*,** Brune CW, Kistner EO, Courchesne E, Cox NJ, Cook EH, Macdonald RL, and Sutcliffe JS. A Maternal transmission of a rare GABRB3 signal peptide variant is associated with autism. ***Molecular Psychiatry***. 2011;**16:86-96**. (* contributed equally to this work). **[highlighted by VUMC reporter]**
24. Macdonald RL, **Kang J-Q**. Molecular pathology of genetic epilepsies associated with $GABA_A$ receptor subunit mutations. ***Epilepsy Currents.*** 2009; 9:18-23.
25. Macdonald RL, **Kang J-Q,** Gallagher MJ. Mutations in GABAA receptor subunits and genetic epilepsies***, J Physio***. 2012;(588):1861-1869
26. **Kang J-Q (corresponding author),** Shen W, Lee M, Gallagher MJ, Macdonald RL. Slow Degradation and Aggregation in vitro of Mutant $GABA_A$ Receptor γ2(Q351X) Subunits Associated with Epilepsy. ***J Neurosci.*** 2010; 30(41):13895-905.**[highlighted by VUMC reporter, Center of Molecular Neuroscience reporter]**
27. Macdonald RL, **Kang J-Q**, Gallagher MG. GABA(A) receptor mutations and generalized epilepsies.in Jasper's Basic mechanisms of the Epilepsies, 2012:PMID 22787601
28. **Kang J-Q (corresponding author)**, Barnes GN. A Common Susceptibility Factor of Both Autism and Epilepsy:functional deficiency of GABAA receptors. ***J Autism and Dev Disord.*** 2013;43:68-79
29. Macdonald, **Kang J-Q.** mRNA Surveillance and ER Quality Control Processes Alter Biogenesis of Mutant $GABA_A$ Receptor Subunits Associated with Genetic Epilepsies. ***Epilepsia***. 2012;,53.Supp 9:59-70
30. **Kang J-Q (corresponding author)**, Shen W, Macdonald RL. Trafficking deficient GABRG2 mutant subunit amount may modify epilepsy phenotype. ***Ann Neurol***. 2013;74(4):547-59 PMID:23720301 **[highlighted by Vanderbilt Brain Institute, MDlinx]**
31. Shah CR, Forsberg CG, **Kang JQ**, Veenstra-Vanderweele J. Letting a Typical Mouse Judge Whether Mouse Social Interactions Are Atypical. Autism Res. 2013; 6(3):212-220
32. Johnston AJ*, **Kang J-Q*,** Shen W, Cushion TD, Davies JS, Baer K, Mullins J, Hammond CL, Chung SK, Thomas RH, White C, Smith PE, Macdonald RL, Rees MI. The Genetic and Functional Basis of a Novel *GABRG2*-Subunit Mutation R136X in a family with GEFS+ and extended phenotypes. ***Neurobiology of Disease.*** 2014 Jan 7;64C:131-141 (* **contributed equally to this work**) PMID: 24407264 (* contributed equally to this work)
33. Warner TA, **Kang J-Q**, Kennard JA, Harrison FE. Low brain ascorbic acid increases susceptibility to seizures in mouse models of decreased brain ascorbic acid transport and Alzheimer's disease. Epilepsy Res. 2015 Feb;110:20-5. PMID:25616451
34. **Kang J-Q (corresponding author)**, Shen W, Zhou C, Xu D, Macdonald RL. Human epilepsy mutation GABRG2(Q390X) caused chronic subunit accumulation and neurodegeneration. ***Nature Neuroscience*** 2015 Jul; 18(7):988-96. PMID:26005849 **[highlighted by Dravet Syndrome Foundation, VUMC reporter]**
35. Warner TA, Shen W, Hang X, Liu Z, Macdonald RL., **Kang JQ (corresponding author).** Molecular basis for epilepsy phenotype heterogeneity: insights from GABRG2 loss of function mutations. ***Human Molecular Genetics.*** 2016 June 23
36. Xia G., Pourali S, Warner TA, Zhang C, Macdonald RL., **Kang JQ (corresponding author)**,**.** Altered GABAA receptor expression and SUDEP in a mouse model of epileptic encephalopathy $Gabrg2^{+/Q390X}$ knockin. ***Epilepsy Research,*** 123:50-54

37. **Kang J-*Q* (corresponding author)**, Macdonald RL. GABRG2 mutations associated with a spectrum of epilepsy from childhood absence epilepsy to Dravet syndrome. ***JAMA Neurology***, 2016, 73(8):1009-16

38. Wang J, Shen D, Xia G, Shen W, Macdonald RL, Xu D, **Kang J-Q (corresponding author).** Protein structural basis of GABRG2 truncation mutation associated with different epilepsy syndromes: implications for disease phenotype heteogeneity. ***Scientific Reports. 2016, Oct 20,*** **[highlighted by VUMC reporter]**

39. Ishii A, **Kang JQ**, Schornak C, Hernandez C, Shen W, Watkins J, Macdonald RL, Hirose S. A de novo missense GABRB2 mutation causes early myoclonic encephalopathy. ***Journal of Medical Genetics***.2016 Oct 27.

40. Warner T, Liu Z, Macdonald RL, **Kang J-Q. (corresponding author).**The effect of brief temperature arise and altered thermoregulation in Gabrg2$^{+/Q390X}$ GEFS+/Dravet syndrome mice. ***Epilepsy Research. (in revision)***

41. Huang X, Zhou C, Shen W, Pimenta A, **Kang J-Q,** Macdonald RL. The epilepsy phenotype in Gabrg2+/Q390X mice was rescued by overexpression of GABRG2 subunit. ***Epilepsia.*** (***under review***)

42. Chung S*, **Kang JQ***, Shen W, Derrick A, Pang K, Zuberi M, MacDonald RL, Rees RI. Co-existence of two allelic GABRG2 nonsense mutations associated with a Dravet syndrome like phenotype and autism. ***JAMA Neurology (under review)*** (* **contributed equally to this work**)

43. Wang J, Luttrell J 4th, Zhang N, Khan S, Shi N, Wang MX, **Kang JQ**, Wang Z, Xu D. Exploring Human Diseases and Biological Mechanisms by Protein Structure Prediction and Modeling. ***Adv Exp Med Biol.*** 2016,939-39-61

44. Ryan J. Delahanty, Yanfeng Zhang, Terry Jo Bichell, Wangzhen Shen, Keliene Verdier, Robert L. Macdonald, Lili Xu, Kelli Boyd, Janice Williams, **Kang J-Q** (**corresponding author)**. Beyond Seizures: Disruption of an epilepsy gene GABRB3 cause ocular hypopigmentation. ***Cell Reports (in press).***

(The following papers are in Chinese)

1. **Jingqiong Kang,** Suiqiang Zhu. Neurodegenerative diseases and mitochondria dysfunction. Chinese Journal of Neurology.2002; 4:468-472
2. **Jingqiong Kang**, Xuzhong Ruan. Sodium, calcium channels and epilepsy. Chinese Journal of Clinical Neuroscience. 2002; 5:456-461
3. **Jingqiong Kang**. Migraine and its molecular genetics. Overseas Medicine, Cerebrovascular Division. 2002;4;327-332
4. **Jingqiong Kang,** Xuzhong Ruan. Ion channels and antiepileptic drugs. Chinese Journal of Clinical Neuroscience. 2002;12: 455-459
5. **Jingqiong Kang**, Qingmei Li. A study of erythrocyte CR1 genomic polymorphism in patients with cerebral infarction. Journal of Tongji Medical School. 2001;2:49-52
6. Wei wang, **Jingqiong Kang,** Xuzhong Ruan. The neuroprotective role of c-fos antisense oligonucleotide on glutamate-induced hippocampus neurons. Chinese Journal of Clinical Neuroscience. 2001;1: 77-83
7. **Jingqiong Kang,** Wei Wang, Xuzhong Ruan. A study on glutamate-induced apoptosis of transfecting Bax PC12 cell line and neuroprotection of nerve growth factor. Journal of Stroke and Neurological Disease. 2001;14:52-57
8. **Jingqiong Kang,** Xuzhong Ruan. A familial study of paramyotonia. Chinese Journal of Neurology. 2001;1: 196
9. **Jingqiong Kang,** Xuzhong Ruan. Anti-epileptic drugs and sodium, calcium channels. Chinese Journal of Clinical Neuroscience.2001; 5:132-137
10. **Jingqiong Kang**, Xuzhong Ruan, Wei Wang. The effect of c-fos antisense oligonucleotide on apoptosis of glutamate-induced hippocampal neurons and PC12 cell line. Stroke and Neurological Diseases.2001; 13:455-460
11. **Jingqiong Kang,** Suming Zhang. Ion channels and neurological disorders. Overseas Medicine, Neurology and Neurosurgery Division. 2000;27(6):287-290
12. **Jingqiong Kang**, Xuzhong Ruan. Case report: 3 cases of narcolepsy. Journal of stroke and neurological diseases. 2000; 4:526
13. **Jingqiong Kang,** Jiangyun He. Neuronal death. . Overseas Medicine, Neurology and Neurosurgery

Division. 2000;27(3):161-164
14. **Jingqiong Kang**, Yi Xiang. The immunological privilege mechanism of brain. Overseas Medicine, Neurology and Neurosurgery Division. 1999;26(4):185-188
15. Qingmei Li, Kun Guo, **Jingqiong Kang.** A study of beta-endorphin after therapy of intractable chronic craniofacial pain by low-energy He-Ne laser nasal irradiation. Chinese Journal of Neurology. 1998;31(2):91
16. **Jingqiong Kang,** Qingmei Li. Ischemic tolerance mechanism of brain. Overseas Medicine, Cerebrovascular Division. 1998;6(3):134-137
17. **Jingqiong Kang,** Qingmei Li. Erythrocyte CR1 polymorphism and the mechanism of its loss. Overseas Medicine. Immunological Division. 1998;21(4):178-182
18. **Jingqiong Kang,** Ling Li. The image study of hypoxia-ischemic encephalopathy of premature infants. Overseas Medicine, Cerebrovascular Division. 1997;5(3):143-146

2. Books, book chapters, invited review articles.

1. Maiese. K., Chong, Z.Z**.,** Kang, J. (2003). Transformation into treatment: novel therapeutics that begin within the cell. In K. Maiese (Ed), *Neuronal and Vascular Plasticity: Elucidating Basic Cellular Mechanisms for Future Therapeutic Discovery* (chap.1, pp. 1-26). Boston: Kluwar Academic Publishers.
2. Chong, Z.Z**.,** Kang, J., Maiese, K. (2003). G-protein mediated metabotropic receptors offers novel avenues in neuronal and vascular cells for cytoprotective strategies. In K. Maiese (Ed), *Neuronal and Vascular Plasticity: Elucidating Basic Cellular Mechanisms for Future Therapeutic Discovery* (chap.10, pp. 257-298). Boston: Kluwar Academic Publishers.
3. Kang JQ, Macdonald RL (2009). Molecular pathology of Genetic Epilepsy Associated with GABAA receptor subunit gene mutations. In:Philip A. Schwartzkroin. Editor Encyclopedia of Basic Epilepsy Research. Vol 1. Oxford: Academic Press: PP:298-304
4. Macdonald RL, Kang J-Q, Gallagher MJ, Feng H-J (2007). $GABA_A$ receptor mutations associated with idiopathic generalized epilepsies and febrile seizures, in S.J. Enna and H. Mohler, The GABAReceptors, Chapt 6, pp. 111-142, 2007.

3. Meeting posters (only selected a few):

1. Kang JQ and Macdonald. Three alterations in gamma2 subunit of GABAA receptors contribute to disinhibition in familial epilepsy. SFN 2003

2. Kang JQ and Macdonald Trafficking-Deficient Mutant α1β2γ2S(Q351X) $GABA_A$ Receptors Linked to GEFS+ are “Rescued” by Wild Type Receptors with Heterozygous Expression but Have Reduced Function. SFN, 2005

3. Kang JQ, Shen W, Macdonald RL. GABAA γ2 subunit TM3-TM4 loop confers slow phase desensentization of α1β2γ2 receptor currents. SFN, 2005

4. Kang JQ, Shen W, Macdonald RL. Haploinsufficency of the $GABA_A$ receptor γ2 subunit caused by truncation mutations may underlie some idiopathic generalized epilepsies. SFN, 2006

5. Kang JQ, Shen W, Macdonald RL. Nonsense-Mediated mRNA decay is Activated by a $GABA_A$ Receptor α1 Subunit Mutation, 975delC, S326fs328X, That is Associated with Childhood Absence Epilepsy. SFN, 2007

6. Kang JQ, Shen W, Macdonald RL. $GABA_A$ Receptor γ2(W390X) Subunit Mutation Associated with GEFS+ had a Dominant Negative Effect . SFN, 2009

7**.** Kang JQ, Shen W, Macdonald RL. An Ion Channel Gene Mutation GABRG2(Q351X) Associated with a Genetic Epilepsy Degrades Slowly, Causing Neuronal Dysfunction. Vanderbilt Kennedy Center symposium, 2009

8. Kang JQ, Shen W, Lee M, Gallagher MJ, Macdonald RL. Slow degradation and aggregation in vitro of mutant GABRG2(Q351X) subunits associated with epilepsy: additional mechanism for epilepsy? SFN. 2010

4. Invited talks:

2015 Dec, Pathophysiology of genetic epilepsies:insights from GABAA receptor mutations, **American Epilepsy society meeting,** Philedelphia, USA

06-09-2014 From molecules to behaviors: pathophysiology of GABAA receptors and pediatric epilepsies, **School of Medicine, Fukuoka University,** Japan

06-18-2014 Molecular pathophysiology of GABAA receptors and epilepsies, **School of Medicine, Wuhan University,** China

12-5- 2013 The update of basic mechanisms of severe epilepsy syndrome associated with GABAA receptors. **American Epilepsy society meeting**, Washington, DC, USA

11-1-2013: GABAA receptor gene mutations and epilepsy and potential novel treatment strategies. **School of Medicine, Nantong University,** China

11-14-2013: Rethinking of idiopathic epilepsies, insights from GABAA receptor gene mutations. **School of Medicine, Qingdao University,** China

9-7-2012. The etiology and therapeutic strategy for epilepsy syndromes assiociated with GABAA receptor mutations. **Georgia Research Institute of Technology, Atlanta,** Georgia

08-16-2012 The update of the molecular pathophysiology and treatment of epilepsies associated with GABAA receptor mutations. **Mayo clinic/Gillette Children Hospital/Dravet.org biannual meeting**. Bloomington, Minnesota

03-12-2011 The update of the molecular pathophysiology of epilepsy (idiopathic). **Tongji Hospital, Tongji College of Medicine, Huazhong University of Science and Technology,** Wuhan, China

11-26-2009 Revisit idiopathic generalized epilepsy. **Shanghai Neuroscience Institute, Chinese Science Academy**, Shanghai, China

11-12-2009 Basic mechanisms of epilepsy associated with GABAA receptor mutations. **Tongji Hospital, Tongji College of Medicine, Huazhong University of Science and Technology**, Wuhan, China

11-14-2009 GABAA receptor mutations, epilepsy and autism. **College of life science, Huazhong University of Science and Technology**, Wuhan, China

8-17-2008 The molecular pathologies of $GABA_A$ receptor gene mutations associated with genetic epilepsies. Organized by IDEAleague, **Northwestern university and Chicago Children's Memorial Hospital,** Meeting, Improving the outcome : Strategies for the Early Diagnosis and Appropriate Treatment of Sodium Channelopathies, Aug 17-10, 2008. Chicago

5-21-2004 Ion channel gene mutations and idiopathic generalized epilepsies, **Tongji Hospital, Tongji Medical College, Huangzhong University of Science and Technology**. May 21, 2004

Research Support

NIH R01 NS082635 Kang J-Q(PI) 7-1-2013-6-30-2018

Altered synapse formation and function in a novel Dravet syndrome mouse model

Biocodex Research grant Kang J-Q(PI) 8-1-2015-7-30-2017

The therapeutical effect of Stiripentol in epilepsies associated with GABAA receptor subunit mutations

CURE 2012 Multidisciplinary Award (CURE organization) Kang J-Q (PI) 08/01-2012-07/30/2013
Probing synaptic alterations with nanoparticle enabled 3D super resolution imaging in a novel genetic epilepsy mouse model

IDEAleague Research Award (Dravet organization) Kang J-Q (PI) 04/15/2010- 05/01/2012
Toward understanding of GABAA receptor γ2 subunit truncation mutations associated with epilepsy and Dravet syndrome

Vanderbilt Clinial & Translational research grant Kang J-Q (PI) 04/01/2011-06/30-2013
A potential new treatment for GABR epilepsy syndromes

R01 NS33300-15 Macdonald (PI) Kang, Co-PI 05/01/1995 – 11/30/2012
$\alpha\beta\gamma/\alpha\beta\delta$ GABAR function/structure and epilepsy mutations
Role: co-investigator

R01 NS50590-04 Macdonald (PI) Kang, Co-PI 12/01/2010 – 11/30/2014
Function/trafficking of $\alpha1\beta2\gamma$ $GABA_AR$s with γ2 subunit truncations
Role: co-investigator

CURE research grant Kang J-Q (PI) 01/01/2007-06/30/2008
Aberrant trafficking of $GABA_A$ receptor epilepsy mutations leads to endoplasmic reticulum stress-related neurodegeneration following prolonged febrile seizures.