

CURRICULUM VITAE

Xiaoming Jin, PhD
Assistant Professor (as of 3/2011)
Department of Anatomy and Cell Biology &
Department of Neurosurgery
Indiana University School of Medicine

EDUCATION

1989	Diploma	Chinese Medicine	Zhejiang Chinese Medical University, China.
1992	M.S.	Acupuncture, Neuroscience	Zhejiang Chinese Medical University, China.
2002	Ph.D.	Neuroscience	West Virginia University, USA.

ACADEMIC APPOINTMENTS

1992-1996 *Physician-in-Charge*, Zhejiang Institute of Traditional Chinese Medicine, China.
2002-2008 *Postdoctoral Fellow and Research Associate*, Department of Neurology and Neurological Sciences, Stanford University School of Medicine.
2009-Present *Assistant professor*, Department of Anatomy and Cell Biology, Stark Neurosciences Research Institute, Indiana University School of Medicine.

PROFESSIONAL ASSOCIATION MEMBERSHIP

Member of Society for Neuroscience
Member of Sigma Xi, the Scientific Research Society

HONORS AND AWARDS

1995 Third prize, *Zhejiang Science and Technology Advancement Award* from the Government of Zhejiang Province, China.
2001 *Graduate Student Travel Award* from the Society for Neuroscience.
2007 *Post-doctoral Research Training Fellowship* from the American Epilepsy Foundation: Inhibitory synaptic connectivity in posttraumatic epileptogenesis.
2007 *Pathway to Independence Award (K99/R00)* from the NINDS (2007-2012: "Excitatory and Inhibitory Synaptic Connectivity in Posttraumatic Epileptogenesis").

TEACHING ASSIGNMENTS (* in current rank at IU)

1997 – 2001 *Teaching Assistant*. Department of Neurobiology and Anatomy, West Virginia University.
- *Medical Histology lab*, spring semester, 1998.
- *Neurobiology lab*, spring semester, 2000.
- *Human Gross Anatomy lab*, spring semesters, 1999 and 2001.

- *2009 Fall: Neuroscience and Clinical Neurology (D505/D852). ~180 medical students.
- Attended all lectures
 - Participated in wet lab teaching
 - Assisted with administering all exams.
- *2009 Fall: Fundamental Neuroscience IV (N612), 8 graduate students.
- Attended all lectures of the module "synaptic plasticity I-IV".
 - Participated in class discussion.
- *2010 Spring: Methods in Cell & Neurobiology (D526), 3 graduate students.
- Lectured "Live Neuronal Imaging" (1 hour).
 - Provided a two-hour demo in the confocal imaging lab.
 - Wrote and graded final exam that is related to the covered materials.
- *2010 Fall: Fundamental Neuroscience IV (N612), 7 graduate students.
- Two lectures of the module "synaptic plasticity I-IV" (4 hours)
 - Two classes: participated in class discussion, and answering questions (4 hours)
 - Assigned and graded exam questions on the lectured topics.
- *2010 Fall: Neuroscience and Clinical Neurology (D505/D852). ~180 medical students.
- Participated in wet lab teaching (6 hours)
 - One lecture on "Somatosensory 1: Receptors & Neural Coding" (1 hour)
 - Assisted with administering all exams.

PROFESSIONAL SERVICE

Manuscript Reviews

- 2008 PloS One
 2009 Journal of Neurotrauma
 2010 Neurosignal

STUDENTS AND POSTDOC MENTORING (* in current rank)

A) Postdoc Fellows

Postdoc	Degree	Year	Current Position
*Faruque Reza	M.D.,Ph.D.	2009	Malaysia University of Science and Technology
*Wenhui Xiong	Ph.D.	2010	Assistant Scientist in my lab
*Xingjie Ping	Ph.D.	2010	Current Postdoc in my lab

B) Thesis committees for graduate students

Student	Degree	Program	Year	Role
*Christine Fontanilla	Ph.D.	Medical Neuroscience	2010	Committee member
*Chandler Walker	Ph.D.	Medical Neuroscience	2009	Committee member

C) Research rotation students

Student	Degree	Program	Year	Role
*John Serak	M.D.	School of Medicine	2009	Rotation Mentor
*Wataru Yamamoto	Ph.D.	IBMG	2009	Rotation Mentor
Lingxiao Deng	Ph.D.	IBMG	2011	Rotation Mentor
Grace Santa Cruz Chavez	Ph.D.	IBMG	2011	Rotation Mentor

GRANTS

A) Current support

- Agency: National Institutes of Health- NINDS (4R00 NS057940-03)
Title: Excitatory and inhibitory synaptic connectivity in posttraumatic epileptogenesis
Duration: 07/15/2007 - 04/30/2012
Amount: \$161,688 annual direct cost, \$637,245 total direct cost.
Role: Principal Investigator.
- Agency: National Institutes of Health- NINDS (4R00 NS057940-04S1)
Title: Excitatory and inhibitory synaptic connectivity in posttraumatic epileptogenesis
Duration: 05/01/2010 - 04/30/2011
Amount: \$50,000 direct cost
Role: Principal Investigator.
- Agency: Indiana State Department of Health, Indiana Spinal Cord and Brain Injury Grant
Title: Complement mediated synapse elimination in posttraumatic epileptogenesis
Duration: 07/01/2009 – 06/30/2011
Amount: \$53,571 annual direct cost, \$107,142 total direct cost.
Role: Principal Investigator.
- Agency: Indiana Clinical and Translational Sciences Institute
Title: Two photon imaging for studying the role of complement-mediated synaptic elimination in posttraumatic epileptogenesis
Duration: 01/01/2010 – 12/31/2010
Amount: \$9900, annual direct cost
Role: Principal Investigator.

B) Pending support

- Agency: National Institutes of Health (R01)
Title: Mechanisms of action of the novel anticonvulsant lacosamide on CRMP-2 and voltage-gated Na⁺ channels
Duration: 12/01/2010 – 11/30/2016
Amount: \$1,500,000 total cost
Role: Co-Investigator – 20% effort (PI, Rajesh Khanna)
- Agency: National Institutes of Health (R21)
Title: Targeting the CRMP-2–Ca²⁺ channel complex for development of pain therapeutics
Duration: 12/01/2010 – 12/30/2012
Amount: \$275,000 total cost
Role: Co-Investigator – 10% effort (PI, Rajesh Khanna)
- Agency: National Institutes of Health (R01)
Title: Functional relay after propriospinal regeneration following SCI
Duration: 04/1/11 - 03/31/16

Amount: \$1,250,000 total cost
Role: Co-Investigator – 10% effort (PI, Xiao-Ming Xu)

C) Previous support

1. Agency: American Epilepsy Foundation
Title: Inhibitory synaptic connectivity in posttraumatic epileptogenesis.
Duration: 01/01/2007 – 12/31/2007
Amount: \$50,000 total cost
Role: Principal Investigator

PUBLICATIONS

A) Peer-reviewed journal publications

1. Joel M. Brittain, Djane B. Duarte, Sarah M. Wilson, Yuying Wang, Weiguo Zhu, Carrie Ballard, May Khanna, Tatiana Brustovetsky, Brian S. Schmutzler, Wenhui Xiong, Matthew S. Ripsch, Nicole M. Ashpole, Andy Hudmon, Cynthia M. Hingtgen, Nikolay Brustovetsky, **Xiaoming Jin**, Michael R. Vasko, Jill C. Fehrenbacher, Joyce H. Hurley, Fletcher A. White, and Rajesh Khanna. Suppression of inflammatory and neuropathic pain by uncoupling CRMP-2 from the presynaptic Ca²⁺ channel complex. *Nature Medicine* (2011, Accepted).
2. Wenhui Xiong, Xingjie Ping, Jianhua Gao, **Xiaoming Jin**. Preparing undercut model of posttraumatic epileptogenesis in rodents. *JOVE*. (2011, Accepted).
3. **Jin X**, Huguenard JR, Prince DA. Reorganization of Inhibitory Synaptic Circuits in Rodent Chronically Injured Epileptogenic Neocortex. *Cereb Cortex*. 2010 Sep 20.
4. Yunxiang Chu*, **Xiaoming Jin***, Isabel Parada, Alexei Pesic, Beth Stevens, Ben Barres, David A. Prince. Enhanced synaptic connectivity and epilepsy in C1q knockout mice. *Proc Natl Acad Sci U S A*. 2010 Apr 27;107(17):7975-80. (* equal contribution).
5. Prince DA, Parada I, Scalise K, Graber K, **Jin X**, Shen F. Epilepsy following cortical injury: cellular and molecular mechanisms as targets for potential prophylaxis. *Epilepsia*. 2009 Feb;50 Suppl 2:30-40.
6. Sanjay S. Kumar*, **Xiaoming Jin***, Paul S. Buckmaster, and John R. Huguenard (2007). Recurrent circuits in layer II of medial entorhinal cortex in a model of temporal lobe epilepsy. *Journal of Neuroscience*, 2007 Feb 7;27(6):1239-46. (*equal contribution).
7. **Xiaoming Jin**, David A. Prince and John R. Huguenard (2006). Enhanced Excitatory Synaptic Connectivity in Layer V Pyramidal Neurons of Chronically Injured Epileptogenic Neocortex in Rats. *Journal of Neuroscience*, 2006 May; 26 (18): 4891 - 4900.
8. **Xiaoming Jin**, John R. Huguenard, and David A. Prince (2005). Impaired Cl⁻ Extrusion in Layer V Pyramidal Neurons of Chronically Injured Epileptogenic Neocortex. *Journal of Neurophysiology*, 2005 Apr; 93(4):2117-26.
9. **Xiaoming Jin**, Hang Hu, Peter H. Mathers, and Ariel Agmon (2003). Brain-derived neurotrophic factor mediates activity-dependent dendritic growth in nonpyramidal neocortical interneurons in developing organotypic cultures. *Journal of Neuroscience*, 2003 Jul; 23 (13):5662-5673.
10. **X. Jin**, P. Mathers, G. Szabo, Z. Katarova and A. Agmon (2001). Vertical bias in dendritic trees of non-pyramidal neocortical neurons expressing GAD67-GFP in vitro. *Cerebral Cortex*. 2001 Jul; 11(7):666-78.

11. Liu Y, Fang J, Sun D, **Jin X**, Wu Y, Wang Y, Song R. (1999). An experimental study of electroacupuncture on auditory impairment caused by kanamycin in guinea pigs. *J. Tradit Chin Med*. 1999 Mar; 19 (1): 59-64.
12. D. Sun, Y. Liu, J. Fan, **X. Jin**, R. Song (1995). Treatment of ototoxic auditory damage caused by Kanamycin with electroacupuncture at different acupoints. *Acupuncture Research*. 1995; 20 (3): 62-66.
13. Y. Ding, **X. Jin**, Y. Liu (1992). Preventive and treatment effect of electroacupuncture on drug induced hearing loss in guinea pigs. *J. of Shaanxi Col of Tradit Chin Med*, 1992 Oct; 15 (4): 1-4.

B. Book chapters in Research

1. **Xiaoming Jin**. Electrophysiological Evaluation of Synaptic Plasticity in Injured CNS. In: Chen, Xu, Xu, and Zhang. *Animal Models of Acute Neurological Injuries II: Injury and Mechanistic Assessments*. (Submitted 4/2010)
2. Yuanliang Liu, **Xiaoming Jin**, Yifu Ding (1994). Chapter Eleven: Meridian Phenomena. Textbook "Lectures on Experimental Acupuncture". Wenzhu Ling and Pei Wang, Shanghai Science and Technology Press, 1994, page165-174.

Conference Abstracts

1. **Xiaoming Jin**, Yunxiang Chu, Isabel Parada, Beth Stevens, and David A. Prince (2008). Enhanced excitatory synaptic connectivity and spontaneous seizures in C1q knock-out mice. Oral presentation in the Society for Neuroscience 38th Annual meeting. Washington DC.
2. **Xiaoming Jin**, Yunxiang Chu, Isabel Parada, Beth Stevens, and David A. Prince (2008). Increased excitatory synaptic connectivity and epileptogenesis in C1q knockout mice. Poster presentation in Gordon Research Conference, Molecular and Cellular Neurobiology, Hong Kong, China.
3. **Xiaoming Jin**, John R. Huguenard and David A. Prince (2007). Excitation and inhibition of neocortical fast-spiking interneurons in a model of posttraumatic epileptogenesis assessed with laser scanning photostimulation. Poster presentation in the American Society of Epilepsy 61st Annual meeting. Philadelphia.
4. **Xiaoming Jin**, John R. Huguenard and David A. Prince (2007). Alterations in excitatory synaptic activation of neocortical fast-spiking interneurons in a model of posttraumatic epileptogenesis. Poster presentation in the Society for Neuroscience 37th Annual meeting. San Diego.
5. Sanjay S. Kumar*, **Xiaoming Jin***, Paul S. Buckmaster, and John R. Huguenard (2006). Laser scanning photostimulation evaluation of recurrent circuits in layer II of medial entorhinal cortex in a model of temporal lobe epilepsy. Poster presentation in the Society for Neuroscience 36th Annual meeting. Atlanta. (* equal contribution).
6. **Xiaoming Jin**, John R. Huguenard and David A. Prince (2005). Increased Layer V Excitatory Connectivity in the Neocortical Undercut Model of Post-Traumatic Epilepsy. Oral presentation in the American Society of Epilepsy 59th Annual meeting. Washington DC.
7. **Xiaoming Jin**, John R. Huguenard and David A. Prince (2005). Layer-Specific Enhancement of Excitatory Synaptic Connectivity in Cortical Layer V Pyramidal Neurons after Traumatic Injury in Rats. Poster presentation in the Society for Neuroscience 35rd Annual meeting. Washington DC.
8. **X. Jin**, D. Prince (2003). Decreased KCC2 but normal E_{Cl} in layer V pyramidal neurons of chronically injured epileptogenic neocortex. Poster presentation in the Society for Neuroscience 33rd Annual meeting. New Orleans.

9. **X. Jin**, P. Mathers, A. Agmon (2001). Development of cortical GABAergic interneurons visualized by gene gun-mediated transfection of GAD67-eGFP. Oral presentation in Society for Neuroscience 31st Annual meeting. San Diego.
10. **X. Jin**, P. Mathers, A. Agmon (2000). Unitary GABAergic postsynaptic currents evoked by minimal stimulation of neocortical inhibitory interneuron biolistically transfected with green fluorescent protein. Poster presentation in Society for Neuroscience 30th Annual meeting, P91. New Orleans.
11. **X. Jin**, P. Mathers, G. Szabo, Z. Katarova, A. Agmon (1999). Visualizing living GABAergic neurons expressing green fluorescent protein. Poster presentation in Fifth IBRO World Congress of Neuroscience, P49. Jerusalem, Israel.