

Principal Investigator/Program Director (Last, First, Middle): Kreipke, Christian W.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Christian W. Kreipke		POSITION TITLE Assistant Professor, Research	
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Wayne State University	B.A.	1995-1999	Anthropology
Wayne State University	M.A.	1999-2000	Medical Anthropology
Wayne State University, School of Medicine	Ph.D.	2000-2004	Neuroscience

A. Positions and Honors

- 01/97-05/97 Wayne State University, School of Medicine and Hutzel Hospital, Research Assistant, Bone Densitometry/Osteoporosis Project
- 09/97-09/99 Wayne State University, Institute for Information and Technology, Research Assistant, HIV/AIDS in Detroit Project
- 09/99-05/00 Wayne State University, Graduate Teaching Assistant, Department of Anthropology
- 05/00-09/00 Wayne State University, Adjunct Instructor, Department of Anthropology
- 09/00-08/04 Wayne State University, School of Medicine, Pre-Doctoral Research Assistant, National Institute of Drug Abuse T32 Training Grant
- 08/04-04/08 Wayne State University, School of Medicine, Research Associate, Dept. Anatomy and Cell Biology, Traumatic Brain Injury
- 04/08-present Wayne State University, School of Medicine, Research Scientist, Dept. Anatomy and Cell Biology

Other Experience and Professional Memberships

- 05/99-present Member, Phi Beta Kappa
- 02/00-present Member, Society for Applied Anthropology
- 02/00-present Member, Society for Medical Anthropology
- 05/01-present Member, Sigma Xi
- 05/01-present Member, New York Academy of Sciences
- 03/01-03/02 Society for Neuroscience Brain Awareness Week Committee, Wayne State University, Chair
- 05/02-present Member, Society for Neuroscience
- 05/02-05/04 Michigan Society for Neuroscience, Student Counselor
- 05/03 Michigan Society for Neuroscience Chapter Meeting coordinator
- 11/04-08/07 Sigma Xi, Wayne State Chapter, Executive Board Member
- 02/05-08/07 Wayne State Alumni Communications Committee, Committee Member
- 05/06-08/07 Sigma Xi, National, Associate Director, NorthCentral Region
- 03/07-present Member, International Society for Cerebral Blood Flow and Metabolism

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02/07-present Chairman of the Board, Southfield Oncology Institute
08/07-present Sigma Xi, National, Acting Director, NorthCentral Region
02/08-present Full Member of The Royal Society

Honors

2002 Dean Thomas Asselin, M.D. Endowed Prize for Excellence in Psychiatry and Behavioral Neuroscience Research (Wayne State University School of Medicine)
2003 1st Place, Society for Neuroscience, MI Chapter, Poster Award
2006 Service Award For 2006 Sigma Xi National Conference
2007 Travel Award, Brain '07, Society for Cerebral Blood Flow and Metabolism
2007 Young Investigators Award, Endothelin 10, Endothelin

B. Peer-reviewed publications (in chronological order)

1. Kuhn DM, Sadidi M, Lu X, Kreipke C, Geddes T, Borges C, and Throck J. 2002 Peroxynitrite-Induced Nitration of Tyrosine Hydroxylase: Identification of Tyrosines 423, 428, and 432 as Sites of Modification by MALDI-TOF Mass Spectrometry and Tyrosine-Scanning Mutagenesis. *Journal of Biological Chemistry* 277:14336-14342.
2. Kreipke C, Walker PD. 2004. NMDA receptor blockade attenuates locomotion elicited by intrastriatal dopamine D1-receptor stimulation. *Synapse* 53:25-32.
3. Kreipke C, Rosenberg D, Keshavan M. 2004. Does disordered brain development cut across diagnostic boundaries? In Keshavan M, Kennedy J, Murray R (Eds.) *Neurodevelopment and Schizophrenia*. Cambridge University Press.
4. Kreipke C, Rafols J, Petrov T. 2005. Transcriptional and translational mechanisms for the reciprocal control of iNOS and endothelin 1 expression in brain microvessels after traumatic brain injury (TBI). *Journal of Cerebral Blood Flow and Metabolism* 25, S191.
5. Kreipke CW, Campbell BM, Walker PD. 2005. Failure of MK-801 to suppress D1 receptor-mediated induction of locomotor activity and striatal preprotachykinin mRNA expression in the dopamine-depleted rat. *Neuroscience* 137:505-517.
6. Kreipke CW, Morgan N, Petrov T, Rafols J. 2006. Calponin and caldesmon cellular domains in reacting microvessels following traumatic brain injury. *Microvas Res.* 71:197-204.
7. Shen Y, Kou Z, Kreipke CW, Petrov T, Hu J, Haacke EM. 2006. In vivo measurement of tissue damage, oxygen saturation changes and blood flow changes after experimental traumatic brain injury in rats using susceptibility-weighted imaging. *Magn Reson Imaging* 25(2):219-227.
8. Kreipke CW, Morgan R, Petrov T, Rafols JA. 2007. Subcellular Redistribution of Calponin Underlies Sustained Vascular Contractility Following Traumatic Brain Injury. *Neurol Res.* 29:604-609.
9. Petrov T, Kreipke C, Alilain W, Nantwi K. 2007. Differential Expression Adenosine A1 and A2 Receptor Protein Levels Following Upper Cervical (C2) Spinal Cord Hemisection In Adult Rats. *J Spinal Cord Med* 30:331-337.
10. Rafols J., Kreipke C, Petrov T. 2007. Alterations in Cerebral Cortex Microvessels and the Microcirculation in a Rat Model of Traumatic Brain Injury: a Correlative EM and Laser Doppler Flowmetry Study. *Neurol Res* 29:339-347.
11. Rafols J, Morgan R, Kallikuri S, Kreipke C. 2007. Extent of nerve cell injury in Marmarou's model compared to other brain trauma models. *Neurol Res* 29:348-355.

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12. Degracia D, Kreipke C, Kayali F, Rafols JA. 2007. Brain endothelial HSP-70 stress response coincides with endothelial and pericyte death after brain trauma. *Neurol Res* 29:356-361.
13. Kallukuri S, Kreipke C, Rossi NF., Rafols JA, Petrov T. 2007. Spatial alterations in endothelin receptor expression are temporally associated with the altered microcirculation after brain trauma Endothelin receptor localization following traumatic brain injury. *Neurol Res* 29:362-368.
14. Kreipke C, Morgan R, Roberts G, Bagchi M, Rafols JA. 2007. Calponin phosphorylation in cerebral cortex microvessels mediates sustained vasoconstriction after brain trauma. *Neurol Res* 29:369-374.
15. Morgan R, Kreipke C, Robert G, Bagchi M, Rafols J. 2007. Neovascularization following traumatic brain injury: possible evidence for both angiogenesis and vasculogenesis. *Neurol Res* 29:375-381.
16. Kreipke CW, Morgan R, Kallakuri S, Rafols JA. 2007. Behavioral pre-conditioning enhances angiogenesis and cognitive outcome after brain trauma. *Neurol Res.* 29:388-94.
17. Dore-Duffy P, Kreipke C, Rafols JA. 2007. Differential expression of capillary VEGF isoforms following traumatic brain injury. *Neurol Res* 29:395-403.
18. Petrov T, Kreipke C, Alilain W, Nantwi KD. 2007. Differential expression of adenosine A1 and A2A receptors after upper cervical (C2) spinal cord hemisection in adult rats. *J Spinal Cord Med.* 30:331-337.
19. Huttemann M, Lee I, Kreipke CW, Petrov T. (in press). Suppression of iNOS prior to traumatic brain injury improves cytochrome oxidase activity and normalizes cellular energy levels. *Neuroscience*
20. Kreipke CW, Schafer PC, Rafols JA. 2008. Endothelin receptor A antagonism ameliorates hypoperfusion and enhances cognitive outcome following traumatic brain injury. *Brain Injury* 22:S43.
21. Rafols JA, Kreipke CW, Kallakuri S. 2008. Upregulation of endothelin-1 receptors in neurons and brain microvessels coincides temporally with a dysfunctional microcirculation after traumatic brain injury. *Brain Injury* 22:S44.
22. Kreipke CW, Schafer PC, Michael D, Rafols JA. (in press). Endothelin receptors A and B are expressed in distinct cellular compartments of rat hippocampus following global ischemia: an immunocytochemical study. *Can J Physio Pharm.*
23. Hoffman WH, Stamatovic SM, Rafols JA, Kreipke CW, Andjelkovic AV. (in press). Inflammatory mediators and blood brain barrier disruption in fatal brain edema of diabetic ketoacidosis. *Experimental Diabetes Research.*
24. Kreipke CW, Schafer PC, Rossi NF, Rafols JA. (in press). Differential affects of Endothelin receptor-A and B antagonism on hypoperfusion following traumatic brain injury (TBI). *Neurological Research.*
25. Hoffman W, Artlett C, Zhang W, Kreipke CW, Passmore G, Rafols JA, Sima AA. (in press) Receptor for advanced glycation end products and neuronal deficit in the fatal brain edema of diabetic ketoacidosis. *Brain Research.*
26. Kreipke CW, Rafols JA. (in press). Calponin control of cerebrovascular reactivity: Therapeutic implications in brain trauma. *J Cell Mol Med.*
27. Schafer PC, Schafer SM, Kreipke CW. (in press). Effects of light-dark cycle on motoric and cognitive activity: Implications for behavioral testing. *Bio Behav Res.*

C. Research Support

Ongoing Research Support

R01 NS39860 T. Rafols (PI)

3/10/04-4/30/09

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NIH-NINDS

Role: CO-I (70% effort)

"Control of microvascular tone in traumatic brain injury"

Investigates the role of endothelin receptors in the control of the microcirculation in a rat model of traumatic brain injury. There is NO overlap between this project and the current proposal. Effort on this project will be reduced to 40% upon successful funding of the current grant.

VA RR & D Award. Rossi (PI)

1/01/08-12/31/11

VA Rehabilitation

Role: CO-I (30% Effort)

"Conditioning, microvascular tone & rehabilitation post brain trauma"

Investigates the role of exercise in the control of microcirculation in a rat model of traumatic brain injury. There is NO overlap between this project and the current proposal.