

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 Eric G. Krause		POSITION TITLE Assistant Professor	
eRA COMMONS USER NAME (credential, e.g., agency login) Krauseeg			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Hiram College	BA	1995-1999	Psychology
Florida State University	MS	2000-2002	Biological Psychology
Florida State University	PhD	2002-2005	Neuroscience
University of Cincinnati	Post-doc	2005-2009	Neuroendocrinology

B. Positions

Research Assistant (1998-1999), Hiram College, Department of Psychology
Laboratory Technician, (1999-2000), Dept. of Psychology, College of Arts & Sciences, Florida State University
Graduate Student, (2000-2005), Dept. of Psychology, Program in Neuroscience, Florida State University
Postdoctoral Fellow, (2005-2009), Dept. of Psychiatry, College of Medicine, University of Cincinnati
Research Assistant Professor (2009-2011), Dept. of Psychiatry, College of Medicine, University of Cincinnati
Director, Telemetry Cardio-Core (2009-2011), Mouse Metabolic Phenotyping Ctr., University of Cincinnati
Assistant Professor (2011-present), Dept. of Pharmacodynamics, College of Pharmacy, University of Florida

Awards/Honors

Dean's List, Hiram College 1999.
Vencl Carr research assistantship fund: \$800 support for independent research project; Hiram College 1999.
Lloyd M. Beidler Award: given to the most outstanding neuroscience graduate student; awarded with an honorary plaque and a \$600 cash prize. Florida State University 2002.
Society for the Study of Ingestive Behavior New Investigator Travel Award 2004, 2007
Best Poster Presentation: awarded with a \$100 dollar cash prize, Ohio Miami Valley Neuroscience Chapter, 2008.
Best Poster Presentation: awarded with a \$200 cash prize, Neurofest Cincinnati, 2008.
Excellence Award for Assistant Professors; awarded with \$5000 for research support, University of Florida 2012.

Experience and Professional Memberships

Peer Referee: Journal of Physiology & Behavior, Journal of Experimental Physiology, Experimental Neurology, Brain Research, European Journal of Neuroscience, Behavioural Brain Research, Experimental Biology and Medicine, PLoS ONE, Journal of Neuroendocrinology, Regulatory Peptides, American Journal of Physiology, Neuropsychopharmacology, Stress, Psychoneuroendocrinology, Journal of Neuroscience

Editorial Board Member: PLoS ONE

Guest Editor: Special Issue, Sex Differences; *Physiol Behav.* 97:141-2, 2009

Member: Society for Neuroscience, Society for Behavioral Neuroendocrinology, Society for the Study of Ingestive Behavior

C. Publications (15 selected from over 30)

1.) **Krause E.G.**, Curtis K.S., Davis L.M., Stowe J.R., Contreras R.J. Estrogen influences stimulated water intake by ovariectomized female rats. *Physiol Behav* 79: 267-74, 2003. PMID:12834798

- 2.) **Krause E.G.**, Curtis K.S., Stincic T.L., Markle J.P., Contreras R.J. Oestrogen and weight loss decrease isoproterenol-induced Fos immunoreactivity and angiotensin type 1 receptor mRNA in the subfornical organ of female rats. Journal of Physiology, London 573:251-62, 2006. PMID:16543266
- 3.) **Krause E.G.**, Curtis K.S., Markle J.P., Contreras R.J. Estrogen affects the central and cardiovascular responses to isoproterenol by female rats. Journal of Physiology, London 582:435-47, 2007. PMID: 17430989
- 4.) **Krause E.G.**, Melhorn S.J., Davis J.F., Scott K.A., Ma L.Y., de Kloet A.D., Benoit S.C., Woods S.C., Sakai R.R. AT1 receptors in the subfornical organ mediate the drinking and hypothalamic-pituitary-adrenal response to systemic isoproterenol. Endocrinology. 149:6416-6424, 2008. PMID: 18687780
- 5.) Melhorn S.J., **Krause E.G.**, Scott K.A., Mooney M.R., Johnson J.D., Woods S.C., Sakai R.R. Meal patterns and hypothalamic NPY expression during chronic social stress and recovery. Am J Physiol Regul Integr Comp Physiol. 299:R813-22, 2010. PMID: 20610828
- 6.) Ulrich-Lai Y.M., Christiansen A.M., Ostrander M.M., Jones A.A., Jones K.R., Choi D.C., **Krause E.G.**, Evanson N.K., Furay A.R., Davis J.F., Solomon M.B., de Kloet A.D., Tamashiro K.L., Sakai R.R., Seeley R.J., Woods S.C., Herman J.P. Pleasurable behaviors reduce stress via brain reward pathways. Proc Natl Acad Sci U S A. 107:20529-34, 2010. PMID: 21059919
- 7.) Flak J.N., Jankord R.J., Solomon M.B., **Krause E.G.**, Herman J.P. Opposing effects of chronic stress and weight restriction on cardiovascular, neuroendocrine, and metabolic function. Physiol Behav. 104(2):228-34, 2011. PMID: 21396386
- 8.) **Krause E.G.**, de Kloet A.D., Flak J.N., Smeltzer M.D., Solomon M.B., Evanson N.K., Woods S.C., Sakai R.R., Herman J.P. Hydration state controls stress responsiveness and social behavior. J. Neurosci. 31(14):5470 –5476, 2011. PMID: 21471383
- 9.) **Krause E.G.**, de Kloet A.D., Scott K.A., Flak J.N., Jones K., Ulrich-Lai Y.M., Woods S.C., Wilson S.P., Reagan L.P., Herman J.P., Sakai R.R. Blood-borne angiotensin II acts in the brain to influence behavioral and endocrine responses to psychogenic stress. J. Neurosci. 31(42):15009-15015, 2011. PMID: 22016534
- 10.) de Kloet A.D., **Krause E.G.**, Scott K.A., Foster M.T., Herman J.P., Sakai R.R., Seeley R.J., Woods S.C. Angiotensin-II Has a Catabolic Action in the Brain of Rats. Am J Physiol Endocrinol Metab. 301:E1081-91, 2011. PMID: 21862725
- 11.) Flak J.N., Solomon M.B., Jankord R., **Krause E.G.**, Herman J.P. Identification of chronic stress-activated regions reveals a potential recruited circuit in rat brain. Eur J Neurosci. 36(4):2547-55, 2012. PMID: 22789020
- 12.) de Kloet A.D., Pati D., Wang L., Hiller H., Sumners C., Frazier C.J., Seeley R.J., Herman J.P., Woods S.C., **Krause E.G.** Angiotensin type 1a receptors in the paraventricular nucleus of the hypothalamus protect against diet-induced obesity. J. Neurosci. 33(11): 4825-33, 2013. PMID: 23486953
- 13.) Frazier C.J., Pati D., Hiller H., Nguyen D., Wang L., MacFadyen K., de Kloet A.D., **Krause E.G.** Acute hypernatremia exerts an inhibitory oxytocinergic tone that is associated with anxiolytic mood in male rats. Endocrinology 154(7):2457-67, 2013. PMID:23653461
- 14.) Flak J.N., Myers B., Solomon M.B., McKlveen J.M., **Krause E.G.**, Herman J.P. Role of paraventricular nucleus-projecting norepinephrine neurons in acute and chronic stress. European Journal of Neuroscience 39(11):1903-11 PMID: 24766138

15.) Smith J.A., Wang L., Hiller H., Taylor C.T., de Kloet A.D., **Krause E.G.** Acute hypernatremia promotes anxiolysis and attenuates stress-induced activation of the hypothalamic-pituitary-adrenal axis in male mice. Physiology & Behavior (*in press*) PMID: 24704193

D. Research Support

Previous Funding:

Title: Predoctoral Training Program in the Neurosciences

Type: NIH: T32

Level: Predoctoral

Grant Number: NS07437 2001-2002

Title: The Role of Estrogen in Stimulated Water Intake

Type: NIH F31 Individual NRSA

Level: Predoctoral

Grant Number: DK063754 2003-2005

Title: Post-doctoral Training Program in Neuroendocrinology of Homeostasis

Type: NIH: T32

Level: Post-doctoral

Grant Number: DK059803 2007

Title: The effect of AT1R antisense on centrally mediated responses to angiotensin II

Type: NIH F32 Individual NRSA

Level: Post-doctoral

Grant Number: DK079710 2007-2009

Title: Central AT1 receptors and the integrated stress response.

Type: NIH K99 Pathways to Independence Award

Level: Mentored/Principal Investigator

Grant Number: K99HL09683 2009-2011

Pending Support:

Title: Central Mechanisms Underlying the Stress Dampening Effects of Acute Hypernatremia

Type: NIH R01

Level: Principal Investigator

Grant Number: R01HL122494-A1 2014-2019

Current Funding:

Title: Angiotensin and Immune Interactions in Hypertension

Type: NIH R01

Level: Collaborating Investigator with 5% effort (PI: Dr. Mohan K. Raizada)

Grant Number: R01HL349880 2013-2018

Title: Development of an animal model and novel treatments for comorbid PTSD and cocaine addiction

Type: DoD pilot

Level: Collaborating Investigator with 15% effort (PI: Dr. Lori Knackstedt) 2013-2014

Central angiotensin receptors and the neural control of homeostasis

Type: NIH: R00

Level: Principal Investigator with 75% effort

Grant Number: R00HL096830 2011-2014