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EDUCATION

Ph.D. Psychology
March, 2002

University of Vermont
General/Experimental Psychology
Dissertation: Amygdaloid contributions to conditioned arousal in the dorsal lateral geniculate (dLGN) nucleus of the rabbit.
Advisor: Bruce S. Kapp, Ph.D.

M.A. Psychology
May, 1999

University of Vermont
Masters Thesis: Arousal-related associative response characteristics of dorsal lateral geniculate nucleus neurons during acoustic Pavlovian fear conditioning.
Advisor: Bruce S. Kapp, Ph.D.

B.S. Psychology
May, 1994

Manhattan College, Riverdale, New York
cum laude

EMPLOYMENT

Postdoctoral Fellow

Department of Psychology, University of Kentucky
Mentor: Michael T. Bardo, Ph.D.
2002-current

EXTRAMURAL FUNDING

NIH NRSA Postdoctoral Fellowship (2002-2004). The Amygdala and Amphetamine Self-Administration. (F32 DA016013). Mentor: Michael Bardo, Ph.D., University of Kentucky, Department of Psychology, Lexington, KY.

PUBLICATIONS (* indicates undergraduate and graduate students supervised)

Cain, M.E., Saucier, D.A. & Bardo, M.T. (in preparation). Novelty seeking and drug use: Contribution of an animal model.

Cain, M.E., *Dotson, W.F., & Bardo, M.T. (in preparation). The effect of novel environmental stimuli prior to amphetamine self administration in high and low responder rats.

Cain, M.E., *Smith, C.M., & Bardo, M.T. (online May 7, 2004). The effect of novelty on amphetamine self-administration in rats classified as high and low responders. *Psychopharmacology*.

Green, T.A., **Cain, M.E.**, Thompson, M., & Bardo, M.T. (2003). Environmental enrichment decreases nicotine-induced hyperactivity in rats. *Psychopharmacology*, 170(3), 235-241.

Cain, M.E. & Kapp, B.S. (2003). Amygdaloid contributions to the conditioned arousal-related responses in the dorsal lateral geniculate nucleus. In P. Shinnick-Gallagher, A. Pitkanen, A. Shekhar, & L. Cahill (Ed.), *The Amygdala in Brain Function: Basic and Clinical Approaches: Vol 895*, 511-514. *Annals of the New York Academy of Sciences*.

Cain, M.E., Kapp, B.S., & *Puryear, C.B. (2002). The contribution of the amygdala to conditioned thalamic arousal. *The Journal of Neuroscience*, 22(24), 11026-11034.

Scheff, S.W., Saucier, D.A., & **Cain, M.E.** (2002). A statistical method for analyzing rating scale data: The BBB locomotor scale. *Journal of Neurotrauma*, 19(10), 1251-1260.

Kapp, B.S. & **Cain, M.E.** (2001). The neural basis of arousal. In R.F. Thompson and J.L. McClelland (Series Ed.) & N.J. Smelser & P.B. Bates (Volume Ed.), *International Encyclopedia of the Social and Behavioral Sciences*, (2), 754-758. New York: Elsevier Science.

Cain, M.E., Kapp, B.S., & * Puryear, C.B. (2000). Arousal-related associative response characteristics of dorsal lateral geniculate nucleus neurons during acoustic Pavlovian fear conditioning. *Behavioral Neuroscience*, 114(2), 241-253.

MANUSCRIPTS IN PREPARATION

Cain, M.E., Green, T.A., & Bardo, M.T. Environmental enrichment decreases responding for visual novelty.

Cain, M.E., *Bylica, K.E. & Bardo, M.T. The ability of rats classified as high

responders to inhibit responding on DRL and FCN tasks.

INVITED PRESENTATIONS

Psychology Challenges Bias Behavior Week. University of Vermont, Spring 2000. The Drug War: A Case of Discrimination.

Gettysburg College, Fall 1999. The Biological Basis of Memory.

ABSTRACTS (* indicates undergraduate and graduate students supervised)

Cain, M.E., Dawahare, E.R., & Bardo, M.T. (June 2004). The central nucleus of the amygdala contributes to the differential responding of high and low responder rats in amphetamine self-administration. CINP Congress, Paris, France.

Cain, M.E., Saucier, D.A., & Bardo, M.T. (May 2004). Relationship between Novelty Seeking and Drug Use: Contribution of an animal model. Society for Prevention Research, Quebec City, Canada.

*Dotson, W.F., Cain, M.E., & Bardo, M.T. (May 2004) Individual differences in response to novelty prior to amphetamine self-administration. Midwestern Psychological Association, Chicago, IL.

*Dotson, W.F., Cain, M.E., & Bardo, M.T. (2004) Novelty disruption of amphetamine self-administration. Posters at the Capitol, Frankfort, KY.

Cain, M.E. & Bardo, M.T. (2003). Differential effects of inactivation of the central nucleus of the amygdala on amphetamine self-administration. Society for Neuroscience, New Orleans, LA.

Saucier, D.A., Cawman, A.J., & Cain, M.E. (2003). Assessment of animal research attitudes and their relationship with curricular exposure using a multi-factored inventory. Society for Neuroscience, New Orleans, LA.

Cain, M.E., *Smith, C.M., *Dotson, W.F., & Bardo, M.T. (2003). The effect of novelty on amphetamine self-administration in rats classified as high and low responders. College on the Problems of Drug Dependence (CPDD), Bal Harbour, FL.

Cain, M.E., Saucier, D.A., *Smith, C.M., & Bardo, M.T. (2003) An evaluation of the behavioral measures of novelty seeking in the rat. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

- Neugebauer, N.M., Harrod, S.B., Dvoskin, L.P., Cain, M.E., & Bardo, M.T. (2003). The effects of nicotine and mecamylamine on methamphetamine self-administration. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- *Smith, C.M., *Dixon, J., Cain, M.E., & Bardo, M.T. (2003). Individual differences predict novelty-induced disruption of amphetamine self-administration in rats. Poster presented at the Psi Chi meeting of the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- *Bylica, K.E., Cain, M.E., Green, T.A., Gherke, B.J., & Bardo, M.T. (2002). Environmental enrichment decreases responding for both drug and non drug reinforcers. NIDA Frontiers in Neuroscience. Society for Neuroscience, Orlando, FL.
- Cain, M.E. & Bardo, M.T. (2002). Performance on a DRL Task by high responder (HR) rats prone to self-administer amphetamine. Program No. 400.12. Society for Neuroscience, Orlando, FL.
- Cain, M.E., Saucier, D.A., Bailey, G., & Falls, W.A. (2002). Using laboratory exercises with animal models to improve attitudes toward animal research. Program No.22.22. Society for Neuroscience, Orlando, FL.
- Cain, M.E. & Kapp, B.S. (2002). Amygdaloid contributions to the conditioned arousal-related responses in the dorsal lateral geniculate (dLGN) nucleus. The Amygdala in Brain Function: Basic and Clinical Approaches. A New York Academy of Sciences conference.
- Cain, M.E. & Kapp, B.S. (2001). Amygdaloid contributions to conditioned arousal in the dorsal lateral geniculate (dLGN) nucleus of the rabbit. Society for Neuroscience Abstracts.
- Cain, M.E., Kapp, B.S., & *Puryear, C.B. (2000). The effects of electrical stimulation of the amygdaloid central nucleus (ACe) on dorsal lateral geniculate nucleus (dLGN) neurons in the awake rabbit. Society for Neuroscience Abstracts, 26, 1256.
- Cain, M.E., Kapp, B.S., & *Puryear, C.B. (1999). Associative response Characteristics of dorsal lateral geniculate neurons (dLGN) during acoustic Pavlovian fear conditioning. Society for Neuroscience Abstracts, 25, 873.
- Cain, M.E., Kapp, B.S., Silvestri, A.J., & Guarraci, F.A. (1997). The effects of arousal-enhancing acoustic stimuli on the activity of neurons within the dorsal lateral geniculate nucleus of the awake rabbit. Society for Neuroscience Abstracts, 23, 1839.

<u>Instructor</u>	<i>Motivation</i> , University of Vermont Department of Psychology. Fall 1999, Summer 2000.
<u>Graduate Teaching Fellow</u>	<i>Biopsychology</i> , University of Vermont Department of Psychology. Spring 2000, Spring 2001.
	<i>Research Methods and Statistics</i> , University in Vermont Department of Psychology. Fall 1998-Spring 1999
	<i>General Psychology</i> , University of Vermont Department of Psychology. Fall 1996-Spring 1998
<u>Laboratory Instructor</u>	<i>Physiological Psychology</i> , University of Vermont Department of Psychology. Fall 1999, Fall 2000.

PROFESSIONAL AFFILIATIONS

American Psychological Association
 Division 6 Member: Behavioral Neuroscience and Comparative
 Psychology
 Midwestern Psychological Association
 Society for Neuroscience
 Women in Neuroscience
 University of Kentucky Local NIDA (Neuroscientists Interested in Drug Abuse)

PROFESSIONAL ACTIVITIES

Ad hoc reviews:
Behavioral Brain Research
International Journal of Developmental Neuroscience
Pharmacology, Biochemistry, and Behavior
Psychopharmacology

Kentucky Chapter Society for Neuroscience Postdoctoral Representative	2002-current
Vermont Chapter Society for Neuroscience Graduate Student Representative	2000-2001
University of Vermont, Department of Psychology Behavioral Neuroscience Search Committee	1999-2000
Computer Committee	1998-2001
Undergraduate Committee	1998-1999