Marieke René Gilmartin

Curriculum Vitae

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University of Wisconsin -Milwaukee
Department of Psychology, 224 Garland Hall
2441 East Hartford Avenue
Milwaukee, WI 53211
Lab: (414) 229-4979 Fax: (414) 229-5219 Email: gilmarti@uwm.edu

EDUCATION:

2007 **Ph.D. in Integrative Biosciences—Neuroscience**, *The Pennsylvania State University College of Medicine, Hershey, PA*

2000 **B.S. in Honors Biochemistry**, *The University of Michigan, Ann Arbor, MI*
Thesis: Competition assays for aminoglycoside-iron binding.

ACADEMIC POSITIONS:

2007-Present **Post-Doctoral Research Associate**, *Department of Psychology, University of Wisconsin-Milwaukee, Milwaukee, WI*

GRANTS:

2004-2007 Ruth L. Kirschstein National Research Service Award, Predoctoral Fellowship #F31 MH071095. Title: Consolidation of Trace Fear in Hippocampus and Amygdala

PUBLICATIONS:

McEchron, M.D., Alexander, D.N., **Gilmartin, M.R.**, Paronish, M.D. (2008) Perinatal nutritional iron deficiency impairs hippocampus-dependent trace eyeblink conditioning in rats. *Developmental Neuroscience*. **30(4)**:243-254.

Gilmartin, M.R. (2007) Mapping learning networks by examining neuronal and population activity during trace classical fear conditioning. The Pennsylvania State University. Doctoral Dissertation. eTD.

Gilmartin, M.R., McEchron, M.D. (2005) Single neurons in the medial prefrontal cortex of the rat exhibit tonic and phasic coding during trace fear conditioning. *Behavioral Neuroscience* **119(6)**:1496-1510.

Gilmartin, M.R., McEchron, M.D. (2005) Single neurons in the dentate gyrus and CA1 of the hippocampus exhibit inverse patterns of encoding during trace fear conditioning. *Behavioral Neuroscience* **119(1)**:164-179.

McEchron, M.D., Cheng, A.Y., Liu, H., Connor, J.R., **Gilmartin, M.R.** (2005) Perinatal nutritional iron deficiency permanently impairs hippocampus-dependent trace fear conditioning in rats. *Nutritional Neuroscience* **8(3)**:195-206.

McEchron, M.D., Cheng, A.Y., **Gilmartin, M.R.** (2004) Trace fear conditioning is reduced in the aging rat. *Neurobiology of Learning and Memory* **82**:71-76.

Gilmartin M.R., McLaren J., Schacht J. (2000) Confounding factors in lanthanide ion probe spectrofluorometric assay of aminoglycoside antibiotics. *Analytical Biochemistry* **283(1)**:116-119.

ABSTRACTS:

Gilmartin, M.R., Helmstetter, F.J. Activation of the mammalian target of rapamycin (mTOR) signaling pathway in the medial prefrontal cortex following trace fear conditioning. Washington, DC: Society for Neuroscience, 2008. CD-ROM.

Gilmartin, M.R., Gafford, G.M., Helmstetter, F.J. Increased ERK phosphorylation in the medial prefrontal cortex following the recall of trace but not delay fear conditioning. Austin, TX: Pavlovian Society Meeting, 2007.

Gilmartin, M.R., McEchron, M.D. Slow-wave activity patterns in the hippocampus, amygdala, and medial prefrontal cortex during trace fear conditioning. Philadelphia, PA: Pavlovian Society Annual Meeting, 2006.

Gilmartin, M.R., Paronish, M.D., McEchron, M.D. Perinatal nutritional iron deficiency in rats prevents hippocampus-dependent trace eyeblink conditioning but not cerebellum-dependent delay eyeblink conditioning. Program No. 997.7. *2005 Abstract Viewer/Itinerary Planner.* Washington, DC: Society for Neuroscience, 2005. CD-ROM.

McEchron, M.D., Cheng, A.Y., Liu, H., Connor, J.R., **Gilmartin, M.R.** Dietary iron deficiency during development permanently impairs hippocampus-dependent trace fear conditioning in rat. Program No. 773.6. *2004 Abstract Viewer/Itinerary Planner.* Washington, DC: Society for Neuroscience, 2004. CD-ROM.

Gilmartin, M.R., McEchron, M.D. Single neurons in the medial prefrontal cortex tonically and phasically encode the trace interval during auditory-cued trace fear conditioning. Program No. 90.3. *2003 Abstract Viewer/Itinerary Planner.* Washington, DC: Society for Neuroscience, 2003. CD-ROM.

McEchron, M.D., Cheng, A.Y., **Gilmartin, M.R.** Aging impairs auditory-cued trace heart rate (fear) conditioning in the freely moving rat. Program No. 114.8. *2003 Abstract Viewer/Itinerary Planner.* Washington, DC: Society for Neuroscience, 2003. CD-ROM.

Gilmartin, M.R., McEchron, M.D. Dentate and CA1 single neurons in the rat hippocampus

encode the duration of the trace interval in auditory-cued trace fear conditioning. Program No. 85.5. *2002 Abstract Viewer/Itinerary Planner.* Washington, DC: Society for Neuroscience, 2002. CD-ROM.

HONORS AND AWARDS:

2007	Department of Neural and Behavioral Sciences Award
2007	The Pennsylvania State University Alumni Association Dissertation Award
2006	Wisconsin Symposium on Emotion Travel Award
2006	D. G. Marquis Behavioral Neuroscience Award (best paper published in the journal *Behavioral Neuroscience* in 2005)
2002	Wisconsin Symposium on Emotion Travel Award
2000-2002	Life Science Consortium Graduate Fellowship
1999	Gerard Biomedical Research Fellowship
1996	Sokol Scholar in Chemistry

PROFESSIONAL MEMBERSHIPS:

2001-Present	Member of the Society for Neuroscience
2004-Present	Member of the Pavlovian Society
2002-2003	Student Councilor for the Central Pennsylvania Chapter of the Society for Neuroscience

PROFESSIONAL ACTIVITIES:

Ad hoc manuscript reviewer for the journal *Learning & Memory*

DATA ANALYSIS-RELATED SKILLS:

- Proficiency in programming in Visual Basic and Matlab languages

TEACHING EXPERIENCE:

2003	Teaching assistant and tutor for Human Neuroanatomy course (NBS 511) at the Penn State College of Medicine