CIRRICULUM VITAE

Amy L. Griffin, Ph.D.

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CURRENT POSITION:
ASSOCIATE PROFESSOR, Department of Psychological and Brain Sciences, University of Delaware

EDUCATION

Ph.D.	May, 2003	Department of Psychology Miami University Oxford, Ohio Advisor: Stephen D. Berry
M.A.	May, 2001	Department of Psychology Miami University Oxford, Ohio Advisor: Stephen D. Berry
B.A.	June, 1996	Baldwin-Wallace College Berea, Ohio Major: Psychology; Minor: German Magna Cum Laude

PROFESSIONAL EXPERIENCE

August 2007 – August 2014	ASSISTANT PROFESSOR Department of Psychology, University of Delaware
July 2003 – August 2007	POSTDOCTORAL RESEARCH FELLOW Center for Memory and Brain, Boston University Laboratory: Howard Eichenbaum & Michael Hasselmo
August 2001 – June 2003	TEACHING ASSOCIATE Department of Psychology, Miami University
August 1998 – June 2001	TEACHING ASSISTANT Department of Psychology, Miami University

CURRENT FUNDING

1R01MH102394 – 01A1 A. Griffin (PI) 07/11/2014 – 05/31/2019
NIH/NIMH
Hippocampal-Prefrontal synchrony in working memory
The guiding hypothesis of the current proposal is that hippocampal-prefrontal oscillatory synchrony is regulated by the anterior midline thalamic nucleus reuniens (RE). The proposed studies will use a combination of electrophysiological methods, bidirectional optogenetic manipulation of neuronal excitation, and behavior to investigate the role of RE activity in HC-PFC synchrony and working memory performance.
Role: PI

Completed Research Support

1R01EB010892 – 01 D. Martin (PI) 06/01/2010 – 05/31/2015
NIH/NIBIB
Direct Integration of Cortical Electrodes by Conducting Polymers Deposited In-Situ
The broad goal of our EUREKA project is to create nanoscale, filamentous extensions of implanted metal electrodes that reach out and into living tissue using local electrochemical polymerization of conducting polymers such as poly(3,4-ethylene dioxythiophene) (PEDOT). This method is expected to significantly improve the performance of a variety of electronic devices intended for long-term implantation in tissue, such as cortical microelectrodes.
Role: Consultant

1P20GM103653 - 01A1 M. Harrington (PI) 09/26/2012 -9/25/2015
NIH/NIGMS
COBRE: The Delaware Center for Neuroscience Research
Role of the rodent medial prefrontal cortex in behavioral plasticity
This project is investigating the role of the prefrontal cortex in a visuospatial conditional discrimination task and delayed spatial alternation task using a combination of inactivation and recording techniques.
Role: Target Investigator (Subaward subproject PI, support through 12/31/2014)

2008-2009 UDRF Award A. Griffin (PI) 06/01/2008 – 05/31/2009
University of Delaware Research Foundation
Interactions between prefrontal cortex and hippocampus during working memory
The goal of this project was to investigate the neural processes involved in learning and memory using a well-characterized animal model, rat spatial working memory. Previous studies have shown that the hippocampus is crucial both for forming new memories and accessing old memories. The medial prefrontal cortex (mPFC) is also important in working memory tasks, but is thought to be involved in putting plans into action after a memory is retrieved and is also important for behavioral flexibility that is required when task demands change. Although there have been many studies that have characterized the activity patterns in these two structures, few studies have examined their interaction within the same subject. Therefore, this project explored the interaction between the hippocampus and mPFC during memory-guided behavior in rats.
Role: PI

F32 MH070184 (NRSA) A. Griffin (PI) 11/16/2003 – 11/15/2006
NIH/NIMH
Hippocampal neuronal activity during spatial memory
The overall aim of this project was to examine the development of hippocampal neuronal firing patterns associated with the performance of an “episodic-like” memory task. Our hypothesis was that distinct networks of hippocampal cells encode sequential places and events that compose each type of trial episode. This project addressed this hypothesis by examining the activity of 50+ simultaneously recorded hippocampal neurons in rats performing a discrete-trials version of the spatial memory task.
Role: PI

PENDING FUNDING

R21 – MH117687 A. Griffin (PI)
NIH/NIMH
Using hippocampal-prefrontal theta synchrony to enhance spatial working memory
Role: PI

R01 - 18A01009 A. Klintsova, A. Griffin (PIs)
NIH/NIAAA
Hippocampal-thalamo-prefrontal circuitry damage and therapeutic intervention in a model of FASD
Role (Co-I)

MEMBERSHIP IN PROFESSIONAL SOCIETIES
Society for Neuroscience
Psi Chi, University of Delaware chapter Faculty Advisor
Nu Rho Psi, University of Delaware chapter Faculty Advisor
Pavlovian Society
Women in Neuroscience
Faculty for Undergraduate Neuroscience

TEACHING EXPERIENCE/TRAINING

Instructor
Miami University Department of Psychology
Introduction to Biopsychology, fall, 2002 – spring, 2003
Introduction to Statistics Laboratory, fall, 2001 – summer, 2002

Teaching Assistant
Miami University Department of Psychology
Advanced Biopsychology, fall, 1998 – spring, 2000

Instructor training
University of Delaware Junior Faculty Network, spring, 2008
Miami University teaching practicum, fall, 2001

COURSES TAUGHT (University of Delaware)
Undergraduate-Level Courses and Seminars
Research in Neuroscience Seminar
Physiological Psychology
Brain and Behavior
Introduction to Neuroscience
Zen and the Brain
Mindfulness and the Brain

Graduate-Level Courses and Seminars
Advanced Neurophysiology
Integrative Neuroscience I
Current topics in Neuroscience: Spatial cognition

MENTORING IN RESEARCH
Postdoctoral Fellows
Henry Hallock, May, 2015 – 2016
Kimberly Urban, June 2013 – June, 2014

Doctoral Students

David Maisson, June 2016 - present
Alicia Edsall, June 2014 – November 2017 (terminal Masters degree)
Andrew Garcia, August 2014 - present
Henry Hallock, August 2010 – May, 2015
Cullen Owens, August 2008 – February, 2009

Four+1 Masters Students
Brett Emanuel, September 2015 – May 2016
Eric Myhre, September 2015 – May 2016
Margaret Donahue, September 2017 – May 2018
John Stout, September 2017 – May 2018
Caroline Lawless, April 2017 – May 2017

Research technicians
Gregory Peters (Sept 2007 – July 2008), Neuroscience Ph.D. student: Cornell University
Kathryn Cline (Aug 2008 – Oct 2010), Research Technician: Q.P.S.
Crystal Shaw (June 2011 – Aug 2012)
Arick Wang (September 2012 – June 2013), Neuroscience Ph.D. Student: Emory University
Dylan Layfield (June 2013 – July 2015), Research Technician, Newman lab, Indiana University
Zachary Gemzik (June 2016 – present)

University of Delaware Undergraduate Senior Thesis Advisor
Peter Adelman, May 2009
Mahsa Parvisi, May 2010
Glenn Watson, May 2012
Monica Patel, May 2014
Margaret Donahue, May 2016

Boston University Academy of Learning Senior Thesis Advisor
Aleks Bromfield, Spring, 2006, Currently a software development engineer for Microsoft Corporation

Science Club for Girls Mentor
Cambridge, MA, Fall, 2004

DISSERTATION COMMITTEES

Matthew Doran, July 1, 2009 (advisor: James Hoffman)
Brett Graham, July 27, 2009 (advisor: David Northmore)
Nathen Murawski, September 2, 2011 (advisor: Mark Stanton)
Gillian Hamilton, October 8, 2012 (advisor: Anna Klintsova)
Sarah Jablonski, April 8, 2014 (advisor: Mark Stanton)
Liangqi Ouyang, September 23, 2014 (advisor: David Martin)
Henry Hallock, April 24, 2015 (my advisee)
Kevin Guise, December 22, 2015 (advisor: Matthew Shapiro)
Nicholas Heroux, projected May 2019 (advisor: Mark Stanton)
Zachary Gursky, projected May 2019 (advisor: Anna Klintsova)
Megan Warren, projected May 2020 (advisor: Joshua Neunuebel)

ACADEMIC HONORS AND AWARDS

Delaware chapter of the Society for Neuroscience
Delaware's Neuroscientist of the Year, 2014

University of Delaware McNair scholars program
Juan Villamarin mentor of the year award, 2009

Miami University Department of Psychology
Comprehensive exam distinction honor, 2002
Letter of commendation, 2002
Patrick J. Capretta memorial scholarship, 2001
Graduate Patten Prize, 2000

Baldwin-Wallace College Psychology Department
Honors program graduate, 1996
Pitcher Psychology Award, 1996
Magna cum Laude
Edith J. Robinson Research Grant, 1995

INVITED TALKS

The Cognitive Thalamus 2 meeting, June 21, 2018
"The nucleus reuniens orchestrates hippocampal-prefrontal synchrony during working memory"

Learning and Memory 2018 meeting, April 18, 2018
"The nucleus reuniens orchestrates hippocampal-prefrontal synchrony during working memory"

University of Delaware Science Café, February, 2018
"This is your brain on meditation"

European Brain Behavior Society (EBBS) 2017 Meeting, September 2017
"The nucleus reuniens orchestrates hippocampal-prefrontal synchrony during working memory"

Spring Hippocampal Research Conference, June 2017
"Task coding within the hippocampal-prefrontal circuit"

Winter conference on Brain Research, January 2017
"Hippocampal-prefrontal synchrony in spatial working memory"

Winter conference on the Neurobiology of Learning and Memory, January 2017
"The ventral midline thalamus orchestrates hippocampal-prefrontal synchrony during working memory"

Florida International University Department of Psychology, March 2016
"Prefrontal-thalamo-hippocampal circuit contributions to spatial working memory"

University of Delaware College of Arts and Sciences Nobel Prize Symposium, October 2014
"The Nobel Prize in Physiology or Medicine: Edvard Moser, May-Britt Moser, and John O'Keefe"

Winter conference on the Neurobiology of Learning and Memory, January 2014
"Hippocampal-prefrontal synchrony in working memory", Session organizer and moderator

Temple University Psychology Department, September 2013
"Hippocampal correlates of spatial memory"

Northeast Regional IDeA conference, August 2013
"Functional interactions and dissociations between discrete brain regions during memory task performance in rats"

Spring Hippocampal Research Conference, June 2013
"Task-related modulation of hippocampal spatial representations"

NESM Spring Symposium, May 2013
"Exploring functional interactions and dissociations between discrete brain regions during memory task performance in rats"

Brown University Psychology Department, May 2013
"Methods for multi-site recording and analysis of neural activity in vivo"

Delaware Neuroscience Community Retreat, April 2012
"Interactions and dissociations between brain memory systems"

University of Delaware Cognitive Science Department, September 10, 2010
"Neural correlates of spatial memory: Characterization of hippocampal firing patterns in freely-moving rats"

Delaware State University Biology Department, September 16, 2009
"Prefrontal-Hippocampal Interactions during Memory-guided Behavior"

Charles River Association for Memory (CRAM) Inaugural Meeting, January, 2006
"Gradual translocation of spatial correlates of neuronal firing in the hippocampus towards prospective reward locations"

Union College Psychology Department, January, 2006
"The Neuroscience of Memory: Experimental approaches using animal models to understand human memory systems"

AD HOC REVIEWER
European Journal of Neuroscience
Frontiers in Behavioral Neuroscience
Hippocampus
Journal of Neuroscience Methods
Learning and Memory
Neurobiology of Aging
Psychopharmacology
PLOS ONE Biology
Journal of Neuroscience
Neuroscience
Cerebral Cortex
Neuroscience

EDITORIAL BOARD MEMBER
Behavioral Neuroscience

GRANT REVIEW PANEL MEMBER
BRLE (NIH), Ad hoc member, July 31, 2018
Special Emphasis Panel: 'BRAIN Initiative: Targeted BRAIN Circuits Projects' (NIH), June 2018
Special Emphasis Panel: 'BRAIN Initiative: Targeted BRAIN Circuits Projects' (NIH), April 2017
BRLE (NIH), Ad hoc member, June 2016
BRLE (NIH), Ad hoc member, November 2016

PUBLICATIONS [Journal impact factor]

1. Maisson D.J-N., Gemzik, Z & Griffin A.L. (2018) Optogenetic suppression of the nucleus reuniens selectively impairs encoding during spatial working memory. *Neurobiol Learn Mem* 155:78-85. [3.244].

2. Edsall A.E., Gemzik Z. & Griffin A.L. (2017) A tactile-visual conditional discrimination task for testing spatial working memory in rats. *Bio-protocol.*

3. Hallock H.L., Wang, A. & Griffin A.L. (2016). The ventral midline thalamus orchestrates hippocampal-prefrontal synchrony during spatial working memory. *J Neurosci* 36(32):8372-89. [6.344]. *Accepted June 15, 2016.*

4. Layfield, D., Patel, M.M., Hallock, H.L., & Griffin, A.L. (2015). Inter-trial delay length-specific effects of thalamic reuniens and rhomboid nucleus inactivation on spatial alternation behavior. *Neurobiol Learn Mem* [3.652]. *Accepted September 11, 2015.*

5. Griffin A.L. (2015). Role of the thalamic nucleus reuniens in mediating interactions between the hippocampus and medial prefrontal cortex during spatial working memory. *Front. Syst. Neurosci.* 9:29. doi: 10.3389/fnsys.2015.00029
Accepted 17 Feb 2015.

6. Urban, K. Layfield, D.M., Griffin, A.L. (2014). Transient inactivation of the rodent prefrontal cortex impairs performance on a working memory dependent conditional discrimination task. *Behav Neurosci* 128(6):639-43. [3.263]. *Accepted 08 Sep 2014.*

7. Ouyang, L., Shaw, C.L., Griffin, A.L., Martin, D.C. (2014) *In vivo* polymerization of poly (3,4-ethylenedioxythiophene) (PEDOT) in living rat hippocampus does not cause a significant loss of performance in a delayed alternation (DA) task. *J Neural Engin* 11(2):026005. *Accepted 15 Dec 2013.*

8. Hallock H.L., Wang A., Shaw C.L., & Griffin, A.L. (2013) Transient inactivation of the nucleus reuniens produces deficits of a working-memory dependent visuospatial conditional discrimination task. *Behav Neurosci* 127(6):860-6. *Accepted 10 Sep 2013* [3.263].

9. Griffin, A.L. & Hallock, H.L. (2013). Hippocampal signatures of episodic memory: Evidence from single-unit recording studies. *Frontiers in Behavioral Neuroscience*. *Accepted 10 May 2013; Epub 23 May 2013.*

10. Hallock, H.L., Arreola, A.R., Shaw, C.L., Watson, G.D.R. & Griffin, A.L. (2013). Dissociable Roles of the Dorsal Striatum and Dorsal Hippocampus in Conditional Discrimination and Spatial Alternation T-Maze Tasks. *Neurobiol Learn Mem* 100: 108-116. *Accepted 12 Dec, 2012; Epub 20 Dec 2012.* [3.419].

11. Hallock, H.L. & Griffin, A.L. (2013). Dynamic coding of dorsal hippocampal neurons between tasks that differ in structure and memory demand. *Hippocampus* 23: 169-186. *Accepted 30 Aug 2012; Epub 4 Oct 2012.* [5.176]. *Provided Cover Art for the issue.*

12. Shaw ,C.L., Watson, G.D.R., Hallock, H.L., Cline, K.M. & Griffin, A.L. (2013). The role of the medial prefrontal cortex in the acquisition, retention, and reversal of a tactile visuospatial conditional discrimination task. *Behav Brain Res* 236: 94-101. *Accepted 16 Aug 2012; Epub 23 Aug 2012.* [3.147].

13. Griffin, A.L., Owens, C.B., Peters, G.J., Adelman, P.C., Cline, K.M. (2012). Spatial representations in dorsal hippocampal neurons during a tactile-visual conditional discrimination task. *Hippocampus* 22: 299-308. *Accepted 6 Sep 2010; Epub 15 Nov 2010.* [5 .176].

14. Darling, R.D., Takatsuki, K., Griffin, A.L., Berry, S.D. (2011). Eyeblink conditioning contingent on hippocampal theta enhances hippocampal and medial prefrontal responses. *J Neurophysiol* 105: 2213-24. [4.001].

15. Huang, Y., Brandon, M.P., Griffin, A.L., Hasselmo, M.E., Eden, U.T. (2009). Decoding movement trajectories through a T-maze using point process filters applied to place field data from rat hippocampal region CA1. *Neural Comput* 21:3305-34. [3.139].

16. Mauldin, K.N., Griffin, A.L., Oliver, C.G., Berry, S.D. (2008). Hippocampal response patterns during discriminative eyeblink/jaw movement conditioning in the rabbit. *Behav Neurosci* 122: 1087-99. [3.263].

17. Griffin, A.L., Eichenbaum, H., & Hasselmo, M.E. (2007). Spatial representations of CA1 hippocampal neurons are modulated by behavioral context in a hippocampus-dependent memory task. *J Neurosci 27*: 2416-2423*.* [8.657].

18. Lee I., Griffin A.L., Zilli, E.A., Eichenbaum, H., & Hasselmo, M.E. (2006). Gradual translocation of spatial correlates of neuronal firing in the hippocampus towards prospective reward locations. Neuron *51*: 639-650. [18.348].

19. Asaka, Y., Mauldin, K.N., Griffin, A.L., Seager, M.A., Shurell, E., & Berry, S.D. (2005). Non-pharmacological amelioration of age-related learning deficits: The impact of hippocampal theta-triggering. *PNAS 102*:13284-8*.* [9.771].

20. Griffin, A.L**.** & Berry, S.D. (2004). Inactivation of the anterior cingulate cortex impairs extinction of rabbit jaw movement conditioning and prevents extinction-related inhibition of hippocampal activity. *Learn Mem*. *11*: 604-10. [4.607].

21. Griffin, A.L., Asaka, Y., Darling, R.D., Berry, S.D. (2004). Theta-contingent trial presentation accelerates learning rate and enhances hippocampal plasticity during trace eyeblink conditioning. *Behav Neurosci*. *118*: 403-11. [3.263].

22. Huff, K.D., Asaka, Y., Griffin, A.L., Berg, W.P., Seager, M.A., Berry, S.D. (2004). Differential mastication kinematics of the rabbit in response to food and water: implications for conditioned movement*. Integr Physiol Behav Sci*. *39*: 16-23. [2.43].

23. Asaka, Y., Griffin, A.L., Berry, S.D. (2002). Reversible septal inactivation disrupts hippocampal slow-wave and unit activity and impairs trace conditioning in rabbits (Oryctolagus cuniculus). *Behav Neurosci*. *116*: 434-42. [3.263].

24. Asaka, Y., Seager, M.A., Griffin, A.L., Berry, S.D. (2000). Medial septal microinfusion of scopolamine disrupts hippocampal activity and trace jaw movement conditioning. *Behav Neurosci. 114*: 1068-77. [3.263].

Complete List of Published Work in Google Scholar (h-index: 15):
https://scholar.google.com/citations?hl=en&user=b_sVYeUAAAAJ&view_op=list_works&sortby=pubdate

MANUSCRIPTS IN PREPARATION

1. Garcia, A.C. & Griffin, A.L. Oscillatory Synchrony within the Hippocampal-Thalamo-Prefrontal Circuit During Spatial Working Memory-guided Behavior.
2. Maisson, D. J-N., Gemzik, Z.M., Stout, J.J., & Griffin, A.L. Comparison of optogenetic suppression of medial prefrontal and hippocampal terminals nucleus reuniens during Select Phases of a Spatial Working Memory Task.

BOOK CHAPTERS

Griffin, A.L., Eichenbaum, H., & Hasselmo, M.E. (2008). Hippocampal Theta Rhythm and Memory-Guided Behavior. Mizumori, S.J.Y. (Ed). Hippocampal place fields: Relevance to learning and memory, Oxford University Press.

Berry, S.D., Seager, M.A., Asaka, Y. & Griffin, A.L. (2001). The Septo-Hippocampal System and Classical Conditioning. Steinmetz J.E., Gluck M.A., Solomon P.R. & Thompson R.F.(Ed). Model Systems and the

Neurobiology of Associative Learning: A Festschrift in Honor of Richard F. Thompson, Lawrence Erlbaum Associates.

CONFERENCE POSTERS and STUDENT PRESENTATIONS (2007 – present)

2018

Garcia, A.C. & Griffin, A.L. Oscillatory Synchrony within the Hippocampal-Thalamo-Prefrontal Circuit During Spatial Working Memory-guided Behavior. Learning and Memory 2018 Meeting.

Garcia, A.C. & Griffin, A.L. Oscillatory Synchrony within the Hippocampal-Thalamo-Prefrontal Circuit During Spatial Working Memory-guided Behavior. Winter conference on the Neurobiology of Learning and Memory.

Maisson, D. J-N. & Griffin, A.L. Effects of Nucleus Reuniens Optogenetic Suppression on Working-Memory Related Hippocampal Activity. (David Olton Data Blitz, Park City Winter Conference, 2018). Winter conference on the Neurobiology of Learning and Memory.

2017

Garcia, A.C. & Griffin, A.L. (January 2017). Investigating the role of the nucleus reuniens in spatial working memory. Winter conference on the Neurobiology of Learning and Memory.

Maisson, D. J-N. & Griffin, A.L. (April 2017). Optogenetic Suppression of mPFC Terminals and Cell Bodies in Nucleus Reuniens during Select Phases of a Spatial Working Memory Task. UT Austin Learning and Memory Conference.

Gemzik, Z.M, Stout, J.J., Looney, N.E., Gaylord, M.T. Maisson, D.J-N. & Griffin, A.L. (November 2017). Oscillatory synchrony within the hippocampal-thalamo-prefrontal circuit during spatial working memory. Society for Neuroscience Annual Meeting.

Garcia, A.C. & Griffin, A.L. (November 2017). Distinct spatial working memory correlates of prefrontal and hippocampal projections to the nucleus reuniens. Society for Neuroscience Annual Meeting.

Maisson, D. J-N. & Griffin, A.L. (November 2017). Comparison of medial entorhinal and nucleus reuniens projections in CA. Society for Neuroscience Annual Meeting.

Gemzik, Z.M, Stout, J.J., Looney, N.E., Gaylord, M.T. Maisson, D.J-N. & Griffin, A.L. (November 2017). Oscillatory synchrony within the hippocampal-thalamo-prefrontal circuit during spatial working memory. Society for Neuroscience Annual Meeting.

Garcia, A.C. & Griffin, A.L. (November 2017). Distinct spatial working memory correlates of prefrontal and hippocampal projections to the nucleus reuniens. Society for Neuroscience Annual Meeting.

Maisson, D. J-N. & Griffin, A.L. (November 2017). Comparison of medial entorhinal and nucleus reuniens projections in CA. Society for Neuroscience Annual Meeting.

Gemzik, Z.M, Stout, J.J., Looney, N.E., Gaylord, M.T. Maisson, D.J-N. & Griffin, A.L. (November 2017). Oscillatory synchrony within the hippocampal-thalamo-prefrontal circuit during spatial working memory. Delaware Chapter of the Society for Neuroscience Meeting.

Garcia, A.C. & Griffin, A.L. (November 2017). Distinct spatial working memory correlates of prefrontal and hippocampal projections to the nucleus reuniens. Delaware Chapter of the Society for Neuroscience Meeting.

Maisson, D. J-N. & Griffin, A.L. (November 2017). Comparison of medial entorhinal and nucleus reuniens projections in CA. Delaware Chapter of the Society for Neuroscience Meeting.

2016

Edsall, A.A. & Griffin, A.L. (November 2016). Hippocampal-prefrontal synchrony in spatial working memory. Society for Neuroscience Abstracts 356.06.

Emanuel, B.A., Hallock, H.L, Myhre, E.R., Griffin, A.L. (November 2016) Distinct contributions of hippocampal and prefrontal afferents to the nucleus reuniens during spatial working memory. Society for Neuroscience Abstracts 739.10.

Garcia, A.C. & Griffin, A.L. (November 2016) Investigating the role of the nucleus reuniens in spatial working memory. Society for Neuroscience Abstracts 739.11.

Edsall, A.A. & Griffin, A.L. (December 2016). Hippocampal-prefrontal synchrony in spatial working memory. Delaware Neuroscience Research and Poster Symposium.

Maisson, D.N., Emanuel, B.A., Hallock, H.L, Donahue, M., Gemzik, Z., Griffin, A.L. (December 2016) Distinct contributions of hippocampal and prefrontal afferents to the nucleus reuniens during spatial working memory. Delaware Neuroscience Research and Poster Symposium. **Third place winner, Graduate Student Category.**

Garcia, A.C. & Griffin, A.L. (December 2016) Investigating the role of the nucleus reuniens in spatial working memory. Delaware Neuroscience Research and Poster Symposium.

Edsall, A.A. & Griffin, A.L. (July 2016). Hippocampal-prefrontal synchrony in spatial working memory. 10th FENS forum of Neuroscience.

2015

Griffin, A.L. (June 2015). The ventral midline thalamus regulates hippocampal-prefrontal synchrony during working memory tasks. Spring Hippocampal Research Conference.

2014

Hallock HL, Griffin A.L. (December 2014) Spatial working memory deficits accompany reductions in hippocampal-prefrontal synchrony following inactivation of the ventral midline thalamic reuniens and rhomboid nuclei. Delaware Neuroscience Research and Poster Symposium. **First place winner, Graduate Student Category.**

Hallock, H.L., Griffin, A.L. (September 2014) Spatial working memory deficits accompany reductions in hippocampal-prefrontal synchrony following inactivation of the ventral midline thalamic reuniens and rhomboid nuclei. Annual meeting of the Pavlovian Society.

Hallock HL, Griffin AL. (November 2014) Spatial working memory deficits accompany reductions in hippocampal-prefrontal synchrony following inactivation of the ventral midline thalamic reuniens and rhomboid nuclei. Society for Neuroscience Abstracts.

Urban, K. Layfield, D.M., Griffin, A.L. (November 2014) Transient inactivation of the rodent prefrontal cortex impairs performance on a working memory dependent conditional discrimination task. Society for Neuroscience Abstracts.

Layfield, D.M., Patel, M.M., Hallock, H.L., Griffin, A.L. (November 2014) Inter-trial delay length-specific effects of thalamic reuniens and rhomboid nucleus inactivation on spatial alternation behavior. Society for Neuroscience Abstracts.

2013

Patel, M.M., Hallock, H.L., Wang, A., Layfield, D.M., Amos, S.M., & Griffin, A.L. (November 2013) Transient inactivation of the thalamic nucleus reuniens produces deficits of a working-memory dependent visuospatial conditional discrimination task. Society for Neuroscience Abstracts, 191.

Hallock, H.L., Griffin, A.L. (January 2013) Working memory modulates hippocampal-prefrontal synchrony across mnemonically distinct T-maze tasks. Winter Conference on the Neurobiology of Learning and Memory.

2012

Layfield, D.M., Farrell, B.T., Patel, M.M., Wang, A., Hallock, H.L., Griffin, A.L. (November 2012) Transient inactivation of the nucleus reuniens (RE) of the thalamus in the rat produces behavioral deficits on two working memory-associated tasks. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium.

Patel, M.M., Arreola, A.R., Hallock, H.L., Griffin, A.L. (November 2012) Dissociable Roles of the Dorsal Striatum and Dorsal Hippocampus in Performance of Mnemonically Distinct T-Maze Tasks. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium.

Hallock, H.L. & Griffin, A.L. (November 2012) Delay-dependent hippocampal-prefrontal synchrony across working memory-dependent and non-working memory-dependent T-maze tasks. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium. **First place winner, Graduate Student Category.**

Arreola, A.R., Hallock, H.H., Shaw, C.L., Patel, M.M., Amos, S.M., Chandrasekhar, V., Watson, G.D.R., & Griffin, A.L. (October, 2012) Dissociable roles of the dorsal striatum and dorsal hippocampus in the performance of mnemonically distinct t-maze tasks. Society for Neuroscience Abstracts, 497.20.

Griffin, A.L. (October 2012) Dissociable Roles of the Dorsal Hippocampus and Dorsal Striatum in Post-Learning Conditional Discrimination and Spatial Alternation Performance in a T-Maze. Society for Neuroscience Satellite Symposium: Independence and interaction among multiple memory systems.

Hallock, H.L. & Griffin, A.L. (October 2012) The effect of delay-dependent working memory demand on hippocampal-prefrontal synchrony during awake behavior and sleep. Society for Neuroscience Abstracts, 397.19

Shaw, C.L., Ouyang, L., Griffin, A.L., & Martin, D.C. (October 2012) A unique approach to increase the long-term reliability of the electrode-neural interface *in vivo***.** Society for Neuroscience Abstracts, 298.14

Hallock, H.L. (April 2012) Memory Demand and Task Structure Differentially Modulate Spatial Representations of Dorsal Hippocampal Neurons in CA1. Delaware Neuroscience Community Retreat

Hallock, H.L. & Griffin AL. (January 2012). Dynamic coding of dorsal hippocampal neurons between tasks that differ in structure and memory demand. Winter Conference on the Neurobiology of Learning and Memory.

2011

Shaw, C.L., Watson, G.D.R., Hallock, H.L., Cline, K.M., & Griffin, A.L. (December 2011). Effects of mPFC inactivation on acquisition, performance and reversal of a tactile visuospatial conditional discrimination task. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium, Delaware Biotechnology Institute.

Hallock, H.L., Cline, K.M., & Griffin, A.L. (December 2011). Dynamic coding of dorsal hippocampal neurons between tasks that differ in structure and memory demand. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium.

Shaw, C.L., Watson, G.D.R., Hallock, H.L., Cline, K.M., & Griffin, A.L. (November 2011). Effects of mPFC inactivation on acquisition, performance and reversal of a tactile visuospatial conditional discrimination task. Society for Neuroscience Abstracts, 97.08.

Hallock, H.L., Cline, K.M., & Griffin, A.L. (November 2011). Dynamic coding of dorsal hippocampal neurons between tasks that differ in structure and memory demand. Society for Neuroscience Abstracts, 731.13

2009

Owens, C.B., Peters, G.J., Adelman, P.C., Cline, K.M., Griffin, A.L. (December, 2009). Characterization of firing patterns of dorsal hippocampal single neurons in a visual-tactile spatial conditional discrimination task. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium.

Cline, K.M., D'Amour, J.A., Rao, A., Yang, S., Owens, C.B., Griffin, A.L. (December, 2009). Reversible inactivation of the medial prefrontal cortex in the rat impairs learning in a spatial working memory task. The Delaware Chapter of the Society for Neuroscience Annual Poster Symposium.

Owens, C.B., Peters, G.J., Adelman, P.C., Cline, K.M., Griffin, A.L. (October, 2009) Characterization of firing patterns of dorsal hippocampal single neurons in a visual-tactile spatial conditional discrimination task . Society for Neuroscience Abstracts, 192.21

Cline, K.M., D'Amour, J.A., Rao, A., Yang, S., Owens, C.B., & Griffin, A.L. (October, 2009). Reversible inactivation of the medial prefrontal cortex in the rat impairs learning in a spatial working memory task. Society for Neuroscience Abstracts,282.11

Griffin, A.L**.** (January 2009). Hippocampal spatial representations in a conditional discrimination task. Winter Conference on the Neurobiology of Learning and Memory.

2008

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