

CURRICULUM VITAE
OF
Dr. Aaron T. Mattfeld
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EDUCATION

Degree	Institution	Field	Dates
PhD	University of California, Irvine	Neurobiology and Behavior	2008 – 2012
MA	Johns Hopkins University	Cognitive Neuroscience	2006 – 2008
BS	Montana State University	Biomedical Sciences	1995 – 2000

FULL-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Dates
Florida International Univ.	Assistant Professor	Psychology	08/14 – current
Massachusetts Institute of Technology	Postdoc. Scientist	Cognitive Neuroscience	01/12 – 08/14
Johns Hopkins Univ.	Research Coord.	Cognitive Neurology	08/04-08/06
Johns Hopkins Univ.	Research Assistant	Cognitive Neurology	08/01-08/06

PUBLICATIONS IN DISCIPLINE**PEER-REVIEWED JOURNAL ARTICLES**

9. **Mattfeld, A.T.**, Whitfield-Gabrieli, S., Biederman, J., Spencer, T., Brown, A., Fried, R., Gabrieli, J.D.E. (2016) Dissociation of working memory impairments and attention-deficit/hyperactivity disorder in the brain. *Neuroimage Clinical*, 10: 274-282.
8. **Mattfeld, A.T.**, Stark, C.E.L. (2015) Functional contributions and interactions between the human hippocampus and subregions of the striatum during arbitrary associative learning and memory. *Hippocampus*. DOI: 10.1002/hip.22411.
7. Allen, T.A., Morris, A.M., **Mattfeld, A.T.**, Stark, C.E.L., Fortin, N.J. (2014) Memory for sequences of events shows parallels in humans and rats. *Hippocampus*. 24: 1178-1188.
6. **Mattfeld, A.T.**, Gabrieli, J.D.E., Biederman, J., Spencer, T., Brown, A., Kotte, A., Kagan, E., & Whitfield-Gabrieli, S. (2014) Resting-state functional connectivity in a longitudinal study of ADHD children grown-up reflects persistent diagnostic status. *Brain*. 137: 2423-2428.
5. LePort, A.K.R., **Mattfeld, A.T.**, Anson, H., Fallon, J.H., Stark, C.E.L., Kruggel, F.R., Cahill, L., McGaugh, J.L. (2012). A behavioral and neuroanatomical investigation of highly superior autobiographical memory (HSAM). *Neurobiology of Learning and Memory*, 98, 78-92.

4. Hargreaves, E.L., **Mattfeld, A.T.**, Stark, C.E.L., Suzuki, W. (2012). Conserved fMRI and LFP signals during new associative learning in the human and macaque monkey medial temporal lobe. *Neuron*, 74, 743-752.
3. **Mattfeld, A.T.**, Gluck, M.A., Stark, C.E.L. (2011). Functional specialization within the striatum along both the dorsal/ventral and anterior/posterior axes during associative learning via reward and punishment. *Learning and Memory*, 18, 703-711.
2. Yassa M.A., **Mattfeld, A.T.**, Stark S.M., & Stark C.E.L. (2011). Age-related memory deficits to circuit-specific disruptions in the hippocampus. *Proceedings of the National Academy of Sciences USA*, 108(21), 8873-8878.
1. **Mattfeld, A.T.** & Stark, C.E.L. (2010). Striatal and medial temporal lobe functional interactions during visuomotor associative learning. *Cerebral Cortex*, 21, 647-658.

PRESENTED PAPERS, AND LECTURES

PRESENTATIONS

9. The impact of loss aversion on learning and memory. Discipline-Based Education Research Seminar Series. Miami, FL, February 2017.
8. Identification of the nucleus reuniens in humans. 41st Annual Winter Conference, Neurobiology of Learning and Memory, Session 6: Critical role of the nucleus reuniens in hippocampus and medial prefrontal cortex dependent memory systems. Park City, UT, January 2017.
7. Functional interactions between the hippocampus and nucleus accumbens: Gating associative memories. International Conference on Memory, Budapest, Hungary, July 2016.
6. Dissociation of working memory impairments and diagnostic status of attention-deficit/hyperactivity disorder (ADHD) in the brain. 3rd Annual Personalized NanoMedicine Symposium. Miami, FL, May 2016.
5. Neuroimaging and attention-deficit/hyperactivity disorder. 13th Annual Conference of Society for Brain Mapping and Therapeutics. Miami, FL, April 2016
4. Identification of the nucleus reuniens in humans with probabilistic tractography. 40th Annual Winter Conference, Neurobiology of Learning and Memory. Park City, UT, January 2016
3. Something old, something new: Neuroimaging, executive functions and ADHD. Neurology Lecture Series. Miami Children's Hospital, Miami, FL, November 2014.
2. Resting-state fMRI as a tool for studying psychopathology. Pediatric Psychopharmacology Lecture Series. Massachusetts General Hospital, Cambridge, MA, January 2014.
1. Assessing functional interactions with the medial temporal lobes during learning and memory. 36th Annual Winter Conference, Neurobiology of Learning and Memory, Session 7: Exploring interregional dynamics of memory systems across species and levels. Park City, UT, January 2012.

ABSTRACTS AND POSTER PRESENTATIONS

16. Allen T.A., Reeders, P., Vertes, R.P., **Mattfeld, A.T.** (2016). Identification of nucleus reuniens in humans using probabilistic tractography. *Society for Neuroscience Annual Meeting*.
15. Reeders, N., Allen, T.A., **Mattfeld, A.T.** (2016) Sequence memory predicts temporal reward discounting and activates prefrontal cortex and medial temporal lobe regions. *Society for Neuroscience Annual Meeting*.
14. Sinha, P.C., **Mattfeld, A.T.**, Gluck, M.A. (2016). Dopaminergic modulation of reward learning across the lifespan. *Pavlovian Society Annual Meeting*.
13. Anteraper S., Whitfield-Gabrieli S., Geddes M.R., Triantafyllou C., Gabrieli J.D.E., **Mattfeld A.T.** (2014). Functional connectivity differences of the anterior and posterior entorhinal cortex in humans. *Society for Neuroscience Annual Meeting*.

12. Marin-Garcia E., **Mattfeld A.T.**, Gabrieli J.D.E. (2014). Resting state connectivity related with retrieval practice. *Society for Neuroscience Annual Meeting*.
11. **Mattfeld, A.T.**, Whitfield-Gabrieli, S., Biederman, J., Spencer, T., & Gabrieli, J. (2014). Dissociation of working memory and attention-deficit/hyperactivity disorder in the brain. *Society for Neuroscience Annual Meeting*.
10. **Mattfeld, A.T.**, Gabrieli, J.D.E., Biederman, J., Spencer, T., Brown, A., Kotte, A., Kagan, E., & Whitfield-Gabrieli, S. (2014) Resting-state functional connectivity in a longitudinal study of ADHD children grown-up reflects persistent diagnostic status. *Annual Resting State Conference*.
9. Shermohammed, M., **Mattfeld, A.T.**, Gabrieli, J.D.E. (2013). Distinct resting-state functional networks related to motivated learning behavior in adults compared to adolescents *Cognitive Neuroscience Annual Meeting*.
8. Marin, E. **Mattfeld, A.T.**, Candon, K.C., Gabrieli, J.D.E. (2013) The “testing effect”: retrieval related functional neuroimaging differences after a week delay. *Cognitive Neuroscience Annual Meeting*.
7. **Mattfeld, A.T.**, Marin, E., Candon, K.C., Gabrieli, J.D.E. (2013) Transfer of “testing effect”: generalization of memory benefits derived from testing practice of studied only items. *Cognitive Neuroscience Annual Meeting*.
6. Morris, A.M., Allen, T.A., **Mattfeld, A.T.**, Stark, C.E.L., Fortin, N.J. (2013) A cross-species approach to investigating the memory for sequences of events. *Society for Neuroscience Annual Meeting*.
5. **Mattfeld, A.T.**, Shermohammed, M., Gabrieli, J.D.E. (2013) fMRI examination of motivated learning and memory of scenes in adults and adolescents. *Society for Neuroscience Annual Meeting*.
4. Allen T.A., **Mattfeld, A.T.**, Fortin N.J., Stark C.E.L. (2011) Non-spatial sequence memory in humans and rats. *Pavlovian Society Meeting*.
3. **Mattfeld, A.T.**, Stark, C.E.L (2011) fMRI examination of the functional specialization of the striatum and medial temporal lobes during the learning and expression of arbitrary associations. *Society for Neuroscience Annual Meeting*.
2. **Mattfeld, A.T.**, Gluck, M.A., Stark, C.E.L. (2010). A high-resolution fMRI investigation of probabilistic reward and loss-based learning in the basal ganglia. *Society for Neuroscience Annual Meeting*.
1. **Mattfeld, A.T.**, Stark, C.E.L (2008) An fMRI investigation of striatal activity during learning and expression of arbitrary associations. *Society for Neuroscience Annual Meeting*.

WORKS IN PROGRESS

PEER-REVIEWED JOURNAL ARTICLES SUBMITTED

2. Marin-Garcia, E.*, **Mattfeld, A.T.***, Gabrieli, J.D.E. (under review) Neural correlates of the testing effect at retrieval. *Cerebral Cortex*.
1. Geddes, M.R., **Mattfeld, A.T.**, de los Angeles, C., Keshavan, A., Gabrieli, J.D.E. (under review) Human aging reduces the neurobehavioral influence of motivation on episodic memory. *NeuroImage*.

UPCOMING PRESENTATIONS

1. **Mattfeld, A.T.** (2017). A tutorial on ‘Advanced Normalization Tools (ANTs)’ *BrainHack Global 2017*.

UPCOMING ABSTRACTS AND POSTER PRESENTATIONS

1. Renfro, A., Farruggia, M., **Mattfeld, A.T.** (2017). The neurobiological correlates of context in memory and decision making. *Society for Neuroscience Annual Meeting*.

1. Anteraper, S.A., Whitfield-Gabrieli, S., **Mattfeld, A.T.**, Joshi, N., Patil., K., Joshi., G. (2017). Resting-state functional connectivity of ventral tegmental area in the context of social functioning. *Organization of Human Brain Mapping Annual Meeting*.

SUBMITTED GRANTS AS PRINCIPLE INVESTIGATOR AND CO-PRINCIPLE INVESTIGATOR

1. A novel examination of the neurobiological deficits underlying increased reaction time variability in children with ADHD. National Institute of Mental Health (NIMH). Resubmission - November 2016. **(co-PI)** Impact score: 30; Percentile: 18.0

FUNDED RESEARCH

GRANTS AS PRINCIPLE INVESTIGATOR DURING FIU TENURE

1. Loss and gain motivated learning in young adults and adolescents. CCF Intramural Awards for Investigators. 2016-2017. **(PI)**

GRANTS AS CO-INVESTIGATOR DURING FIU TENURE

1. Utility of Cognitive Subgroups in Predicting Treatment Response to Methylphenidate in Children with ADHD. Bran & Behavior Research Foundation. 2016-2018. **(co-I)**

PROPOSALS SUBMITTED BUT NOT FUNDED

8. Prefrontal cortex to hippocampus pathways in temporal reward discounting and sequence memory. National Institute of Mental Health (NIMH). Submitted February 2016. **(co-PI)**
7. A novel examination of the neurobiological and cognitive deficits underlying increased reaction time variability in children with ADHD. National Institute of Mental Health (NIMH). February 2016. **(co-PI)**
6. Multimodal neuroimaging of brain networks maintaining cigarette smoking. Florida Department of Health James and Esther King Biomedical Research Program. 2016. **(co-I)**
5. An fMRI and neurocognitive investigation of tolerance to stimulant medication in attention-deficit/hyperactivity disorder. National Institute of Mental Health (NIMH). Resubmission – December 2015. **(PI)**
4. An fMRI and neurocognitive investigation of tolerance to stimulant medication in attention-deficit/hyperactivity disorder. National Institute of Mental Health (NIMH). June 2015. **(PI)**
3. Working memory load capacity based safety performance evaluation of construction workers. National Science Foundation (NSF). Resubmission - October 2015. **(co-PI)**
2. Characterizing intrinsic brain networks in attention-deficit/hyperactivity disorder following methylphenidate treatment. Bran & Behavior Research Foundation (BBR). February 2015. **(PI)**
1. Working memory load capacity based safety performance evaluation of construction workers. National Science Foundation (NSF). February 2015. **(co-PI)**

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS

2010 Achievement Rewards for College Scientists (ARCS) Scholar

GRADUATE STUDENTS AND POSTDOCTORAL SCIENTISTS

GRADUATE STUDENTS

Current PhD Students

Amanda Renfro (PhD)

Adam Kimbler (PhD)

OTHER PROFESSIONAL ACTIVITIES, MEMBERSHIPS, AND PUBLIC SERVICE

DEPARTMENT AND UNIVERSITY ACADEMIC SERVICE

- 2016 Reviewer Medical School Applicant Pre-Health Professions Advising at Florida International University
- 2016 BRI Summer Research Award Selection Committee
NIGMS RISE at Florida International University
- 2016 Faculty Judge Graduate Scholarly Forum at Florida International University
- 2015 Presidential Scholarship Selection Committee
Psychology Department at Florida International University
- 2014-2015 Cognitive Neuroscience Faculty Search Committee
Psychology Department at Florida International University

PROFESSIONAL MEMBERSHIPS

- 2006-current Society for Neuroscience
- 2012-current Cognitive Neuroscience Society

REVIEWING SERVICE

Ad hoc reviewer for: Neuropsychologia; Journal of Neuroscience; NeuroImage; Neuron; PNAS; Journal of Attention Disorders; PLOS One; Cognitive Affective Behavioral Neuroscience; Cognitive Processing; NeuroImage: Clinical; Behavioral and Brain Functions;

Ad hoc reviewer for: National Science Foundation