

**CONTACT INFORMATION**

Center for the Neurobiology of Learning and Memory  
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**EDUCATION**

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|--------------|---|
| 2014-Present | Neurobiology and Behavior, Ph.D. in progress<br>University of California, Irvine; Irvine, CA  |
| 2012-2013    | Psychological and Brain Sciences, Ph.D. student<br>Johns Hopkins University; Baltimore, MD  |
| 2008-2012    | B.A. Philosophy with Honors, <i>Summa Cum Laude</i><br>University of Alabama at Birmingham; Birmingham, AL  |
| 2008-2012    | B.S. Psychology with Honors, <i>Summa Cum Laude</i><br>University of Alabama at Birmingham; Birmingham, AL<br><i>Thesis: Negative, but not Positive Emotional Images Modulate<br/>the Startle Response Independent of Conscious Awareness</i> |

**RESEARCH EXPERIENCE**

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|--------------|--|
| 2014-Present | Graduate Research Fellow<br>Neuroscience of Memory in Aging & Dementia Laboratory<br>University of California, Irvine; Irvine, CA<br>Principal Investigator: Michael A. Yassa, Ph.D. |
| 2012-2013    | Graduate Research Fellow<br>Learning & Memory Laboratory<br>Johns Hopkins University; Baltimore, MD<br>Principal Investigator: Michael A. Yassa, Ph.D.                               |
| 2011         | Research Assistant<br>Educational Cognitive Neuroscience Laboratory<br>Vanderbilt University; Nashville, TN<br>Principal Investigator: Bruce D. McCandliss, Ph.D.                    |

- 2010-2012      Research Assistant  
Civitan International Research Center, Dept. of Psychology  
University of Alabama at Birmingham; Birmingham, AL  
Principal Investigator: David Knight, Ph.D.
- 2009-2010      Research Assistant  
Evelyn F. McKnight Brain Institute, Dept. of Neurobiology  
University of Alabama at Birmingham; Birmingham, AL  
Principal Investigator: J. David Sweatt, Ph.D.

## TEACHING EXPERIENCE

- 2013              Teaching Assistant  
Course Title: "Neurobiology of Learning and Memory"  
Johns Hopkins University; Baltimore, MD  
Instructor: Michael Yassa, Ph.D.
- 2013              Teaching Assistant  
Course Title: "Cognitive Psychology"  
Johns Hopkins University; Baltimore, MD  
Instructor: Jonathan Flombaum, Ph.D.
- 2011              Teaching Assistant  
Course Title: "Brain, Mind, and Behavior"  
University of Alabama at Birmingham; Birmingham, AL  
Instructor: David Knight, Ph.D.

## AWARDS AND HONORS

- 2014              William F. Holcomb Scholarship, UCI School of Biological  
Sciences (\$2,000 award)
- 2013-Present    National Science Foundation Graduate Research Fellowship  
(\$32,000/year stipend and \$12,000/year tuition and fees for 3 years)
- 2012              UAB Department of Psychology Achievement Award for the  
Outstanding Undergraduate Student in Psychology (\$500 award)
- 2012              UAB Department of Psychology Service Award in recognition  
of organizing Brain Awareness Week outreach
- 2012              First Place, UAB Ost Undergraduate Research Competition
- 2011              Leadership Alliance – Early Identification Program  
Summer Research Fellowship (\$4,000 stipend)

2011	UAB Department of Psychology Travel Grant (\$500 award)
2011-Present	Psi Chi Psychology Honor Society
2010-Present	National Scholars Honor Society
2010-2012	UAB Psychology Honors Program
2008-2012	UAB Philosophy Honors Program

## ACADEMIC SERVICES

Reviewed manuscripts with Dr. Yassa for the following peer-reviewed journals:

- Cerebral Cortex
- Frontiers in Neuroscience
- Hippocampus
- Neurobiology of Learning & Memory
- The Journal of Neuroscience
- Learning & Memory
- Nature Neuroscience
- Neuron

## SOCIETY MEMBERSHIPS

2011-Present	Pavlovian Society
2011-Present	Cognitive Neuroscience Society
2011-Present	Society for Neuroscience

## MENTORING

2013	Natalie DiProspero Undergraduate summer intern in the Yassa Lab (JHU) Washington University; St. Louis, MO
2013	Amanda Woodward Undergraduate summer intern in the Yassa Lab (JHU) Loyola University; Baltimore, MD

## PUBLICATIONS

1. **Reagh, ZM**, Watabe, J, Ly, M, Murray, E, & Yassa, MA (*in preparation*). Dissociated signals in human dentate gyrus and CA3 predict different facets of recognition memory.
2. **Reagh, ZM** & Yassa, MA (*under review*). Object and spatial mnemonic interference differentially engage lateral and medial entorhinal cortex in humans.

3. **Reagh, ZM** & Yassa, MA (2014). Repetition strengthens target recognition but impairs similar lure discrimination: Evidence for trace competition. *Learning & Memory*. DOI: 10.1101/lm.034546.114.
4. **Reagh, ZM**, Roberts, JM, DiProspero, N, Ly, M, Murray, L, & Yassa, MA (2013). Spatial discrimination deficits as a function of mnemonic interference in aged adults with and without memory impairments. *Hippocampus*. DOI: 10.1002/hipo.22224.
5. Schurgin, M.W., **Reagh, Z.M.**, Yassa, M.A., Flombaum, J.I. (2013) Spatiotemporal continuity alters long-term memory representations. *Visual Cognition* 21(6): 715-718. DOI: 10.1080/13506285.2013.844969.
6. Yassa, MA & **Reagh, ZM** (2013). Competitive Trace Theory: A role for the hippocampus in contextual interference during retrieval. *Frontiers in Behavioral Neuroscience* 7(107):1-13 DOI: 10.3389/fnbeh.2013.00107.
7. **Reagh, ZM** & Knight, DC (2012). Negative, but not positive emotional images modulate the startle response independent of conscious awareness. *Emotion*. DOI: 10.1037/a0032286.

## PRESENTATIONS

1. **Reagh, ZM** & Yassa, MA (May 2014, upcoming). The ups and downs of repeated study on memory-related neural activity and behavior. Coalition for National Science Funding Capitol Hill Exhibition; Washington, DC. [*Presentation representing UCI*]
2. **Reagh, ZM** & Yassa, MA (2014). Extrahippocampal contributions to hippocampal pattern separation: a high-resolution fMRI study. Center for the Neurobiology of Learning and Memory Annual Meeting; Irvine, CA. [*Oral Presentation*]
3. **Reagh, ZM** & Yassa, MA (2013). A Division of Labor in the Medial Temporal Lobe: Pattern Separation of Object Identity vs. Spatial Location. Society for Neuroscience Annual Meeting; San Diego, CA. [*Poster Presentation*]
4. **Reagh, ZM** & Yassa, MA (2013). A division of labor in the medial temporal lobe: object identity vs. spatial location. JHU Psychological and Brain Sciences Seminar presentation. [*Oral Presentation*]
5. **Reagh, ZM** & Yassa, MA (2012). A division of labor in the medial temporal lobe: object vs. spatial memory. JHU Psychological and Brain Sciences Biopsychology Lunch presentation. [*Oral Presentation*]
6. Yoncheva, YN, **Reagh, ZM**, & McCandliss, BD (2012). Isolating the ripples of recognition within stimulus-driven SSVEP waves: topographic insights into word and face identity processing. Society for Neuroscience Annual Meeting; New Orleans, LA. [*Poster Presentation*]
7. **Reagh, ZM** & Knight, DC (2012). Negative, but not Positive Emotional Images Modulate the Startle Response Independent of Conscious Awareness. Ost

Undergraduate Research Competition at the University of Alabama at Birmingham; Birmingham, AL. *[Poster Presentation]*

8. Yoncheva, YN, **Reagh, ZM**, & McCandliss, BD (2012). Isolating the ripples of recognition within stimulus-driven SSVEP waves: topographic insights into word and face identity processing. Cognitive Neuroscience Society Annual Meeting; Chicago, IL. *[Poster Presentation]*
9. **Reagh, ZM**, & Knight, DC (2011). Effect of Perception of Emotional Valence on the Startle Response in Humans. Bevill Conference on Cognition and Cognitive Disorders; Birmingham, AL. *[Poster Presentation]*
10. **Reagh, ZM** & Knight, DC (2011). Effect of Perception of Emotional Valence on the Startle Response in Humans. Pavlovian Society Annual Meeting; Milwaukee, WI. *[Poster Presentation]*
11. **Reagh, ZM**, Yoncheva, YN, & McCandliss, BD (2011). Steady State Visual Evoked Potentials Reveal Hemispheric Differences for Visual Categories. Vanderbilt Summer Science Academy Poster Session; Vanderbilt University. *[Poster Presentation]*
12. **Reagh, ZM**, Yoncheva, YN, & McCandliss, BD (2011). Steady State Visual Evoked Potentials Reveal Hemispheric Differences for Visual Categories. Leadership Alliance National Symposium; Greenwich, CT. *[Poster Presentation]*
13. **Reagh, ZM** & Knight, DC (2011). Effect of Perception of Emotional Valence on the Startle Response in Humans. UAB Undergraduate Research Expo; University of Alabama at Birmingham. *[Oral presentation]*

## REFERENCES

- Michael Yassa, Ph.D.  
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