

**JESSICA D. PAYNE, PH.D.**

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*Revised 6/2022*

**PRIMARY ACADEMIC POSITION**

- 2021-present **Professor of Psychology**, Department of Psychology, University of Notre Dame
- 2014-2021 **Associate Professor of Psychology**, Department of Psychology, University of Notre Dame
- 2019-2020 **Andrew J. McKenna Family Collegiate Chair**, University of Notre Dame
- 2011-2019 **Nancy O'Neill Collegiate Chair**, University of Notre Dame
- 2009-2014 **Assistant Professor of Psychology**, Department of Psychology, University of Notre Dame

**OTHER ACADEMIC POSITIONS**

- 2012-2013 **Visiting Professor**, Boston College, Department of Psychology
- 2011-2012 **H. Smith Richardson Jr. Fellow**, Center for Creative Leadership, Greensboro, NC

**EDUCATION**

- 2006-2009 **Harvard University**  
**Postdoctoral Fellow, Psychology/Cognitive Neuroscience**  
*Advisors:* Daniel Schacter and Robert Stickgold
- 2005-2006 **Harvard Medical School, Beth Israel Deaconess Medical Center**  
**Postdoctoral Fellow, Cognitive Neuroscience**  
*Advisor:* Robert Stickgold

- 1999-2005     **University of Arizona, Ph.D., Psychology/Cognitive Neuroscience**  
*Advisor: Lynn Nadel*
- 1997-1999     **Mount Holyoke College, M.A., Experimental Psychology**
- 1991-1995     **University of San Diego, B.A., Psychology, magna cum laude**

**RESEARCH GRANTS AND TRAINING FELLOWSHIPS**

**Funded – National Science Foundation**

09/01/2020-08/31/2024

**Jessica D. Payne, P.I. (Elizabeth Kensinger, co-P.I.)**

**National Science Foundation**

**\$899,876**

*Sleep and Selective Emotional Memory Consolidation from Young Adulthood through Middle Age: PSG and fMRI Investigations (BCS-2001025).* This project examines whether sleep produces the same selective emotional memory benefits in middle-aged adults as younger adults, and whether the same sleep physiology and neural networks underlie this selective memory consolidation. Note that this is primarily a sleep polysomnography grant, and thus most of the funds will stay at Notre Dame, while a smaller portion goes to Boston, where the fMRI scanner and the other co-PI (Elizabeth Kensinger) is located.

**Pending – John Templeton Foundation**

**Jessica D. Payne, P.I.**

**\$233,969**

*Facilitating Genius through Sleep.* This project will examine methods to increase creative problem solving, focusing on ways to improve problem solvers initial processing of problem components before sleep and methods of eliciting further processing of the problem during different sleep stages. The goal of the project is the development of protocols and recommendations for increasing creative problem solving, and the imminent testing of these methods on real-world challenging problems.

**Funded – National Science Foundation**

7/2015-6/2018 (with no-cost extension through 6/2019)

**Jessica D. Payne, P.I. (Elizabeth Kensinger co-P.I.)**

**National Science Foundation**

**\$550,976**

*Stress at learning interacts with sleep to optimally consolidate emotional memories (BCS-1539361).* This project examined how stress and cortisol during learning influence memory consolidation using both task-based and resting-state fMRI analyses. Note that while this grant tested my newest theory about sleep-stress interactions during memory consolidation, it is a fMRI grant, and thus most funds went to Boston, where the scanner, and the other Co-PI (Elizabeth Kensinger), are located.

**Funded – National Science Foundation**

8/2010-7/2013 (with no-cost extension through 2014)

**Jessica D. Payne, P.I. (Elizabeth Kensinger, co-P.I.)**

**National Science Foundation**

**\$454,888**

*Sleep Dependent Preservation of Emotional Memory: EEG and fMRI*

*Investigations (BCS-0963581)*. This project used polysomnographic (PSG) sleep studies and fMRI to examine emotional memory formation during sleep. The sleep research was conducted at Notre Dame and the fMRI studies were conducted in Boston. Through the newly formed Notre Dame/Boston College Cognitive Neuroscience Exchange Program, undergraduates from Notre Dame spent a summer in Boston learning fMRI techniques, and Boston College students spent a summer at Notre Dame to learn sleep polysomnography.

**Funded – National Science Foundation**

2013-2015

**Jessica D. Payne, Primary Sponsor**

**\$96,000**

**National Science Foundation**

*Does Sleep Influence Memory for Gist?*

NSF Graduate Research Fellowship; Recipient: Enma Pardilla-Delgado

**Funded – National Institutes of Health**

9/2014-5/2018 (with no-cost extension through 5/2019)

**Co-Investigator**

**National Institutes of Health**

**\$2,913,061**

*NetHealth: Modeling the Co-Evolution of Social Networks and Health Behaviors, (ROI HL117757-01A1)*. In collaboration with the departments of Sociology and Computer Science and Engineering, this project examined the extent to which people's social ties to others affect two important health-related behaviors - physical activity and sleep habits - that are known to have effects on health outcomes, such as specific types of cancer, cardiovascular diseases, obesity, cognitive functioning, and life expectancy. My lab tested the ability of the BodyMedia Health Armbands to measure properties of sleep, and developed and tested models about the effects of social network position on sleep habits, as well as the effects of sleep habits on network position.

**Funded – National Institutes of Health**

9/2011-8/2016 (with no-cost extension through 8/2017)

**Co-Investigator**

**National Institutes of Health**

**\$3,062,774**

*Notre Dame Study of Well-Being (NDHWB), (NIA 2 ROI AG02357-06)*. In collaboration with Cindy Bergeman, Ph.D. at the University of Notre Dame, this project examined the types and qualities of life stress that initiate cascades of perceptual, emotional, and biological responses that can lead to disorder and disease, and to examine coping resources that protect against them.

**Funded – National Institutes of Health**

1/2015-12/2017

**Primary Sponsor**

**National Institutes of Health**

**\$184,518**

*The Impact of Emotional Salience and Aging on Selective Sleep-Based Memory Consolidation, (F32AG047807).*

National Research Service Award (NRSA) Postdoctoral Fellowship; Primary Investigator: Dr. Sara Alger; Co-Sponsors: Dr. Michael Perlis (U Penn), and Cindy Bergeman (Notre Dame).

#### **Funded – Internal**

- 4/2016      **Principal Investigator**      **ISLA Large Grant, Notre Dame**      **\$4,000**  
*The Effects of Emotional Salience and Aging on Selective Sleep-Based Memory Consolidation*
- 3/2014      **Principal Investigator**      **ISLA Founders Grant, Notre Dame**      **\$10,000**  
*Restoring Healthy Sleep to Prevent the Deterioration of Prospective Memory in Depressed Individuals: A CBT-I Approach*
- 11/2013      **Primary Sponsor**      **ISLA Notre Dame**      **\$1296.00**  
*Individual Variability in Statistical Learning: A Possible Cognitive Mechanism of Insight; Recipient: Steve Mattingly*
- 2006-2009      **Harvard University, Mind, Brain and Behavior Postdoctoral Research Fellowship**  
*The role of sleep in episodic memory consolidation*
- 2000-2003      **McDonald-Pew Cognitive Neuroscience/Flinn Foundation Graduate Fellowship**  
*The effects of stress on human memory function*
- 2002      **University of Arizona Research Grant**
- 1994-1995      **Associated Students Research Grant (University of San Diego)**

#### **HONORS AND AWARDS**

##### **Research/Academic**

- 2021      Selected as the National Academy of Sciences 2021 Seymour Benzer/Sydney Brenner Lecturer (“*Each year’s lecturer is selected from among speakers at a Kavli Frontiers of Science symposium, and the National Academy of Science Committee on Scientific Programs has chosen you to present the 2021 Seymour Benzer/Sydney Brenner Lecture*”).
- 2019      Induction into INS (International Neuropsychological Symposium) – *an invitation-only international group, which, since 1951, meets every year for the purpose of promoting knowledge and understanding of brain functions and cognate issues on the borderland of neurology, psychology and psychiatry.*
- 2019      Induction into MDRS (Memory Disorders Research Society) – *an invitation-only international professional society dedicated to the study of memory and memory*

*disorders.*

- 2017 National Academy of Sciences, Kavli Fellow. “*About the Kavli Fellow Program: Kavli fellows are selected by the advisory board of The Kavli Foundation and members of the National Academy of Sciences from young researchers who have already made recognized contributions to science, including recipients of major national fellowships and awards and who have been identified as future leaders in science. More than 150 Kavli fellows have been elected into the National Academy of Sciences and 10 have been awarded Nobel Prizes.*”
- 2015 Early Career Award from the Psychonomic Society, *conferred upon young scientists who have made significant contributions to scientific psychology early in their careers (associated with a \$2500 research award to be used for projects of my choice).*
- 2011-2019 Nancy O'Neill Collegiate Chair/Andrew J. McKenna Family Collegiate Chair – awarded for outstanding research, teaching and service at the University of Notre Dame (*associated with a research award of \$75,000 to be used for projects of my choice*).
- 2011-2012 H. Smith Richardson Jr. Fellow, Center for Creative Leadership, Greensboro, NC – awarded for my work applying cognitive and affective neuroscience to leadership practice and business ethics (*associated with a research award of \$20,000 to be used for a project of my choice*).
- 2011-2017 Appointed Reilly Center Fellow
- 2011 Notre Dame's single candidate nominated to apply for Searle Scholars Funds
- 2010 Laird Cermak Early Career Award for early contribution to memory research by the International Neuropsychological Society – *given to candidates who are less than five years from completion of training for outstanding research in memory or memory disorders.*
- 2010 Provost's interfaculty initiative on interdisciplinary research, funds awarded for program in Brain, Mind and Behavior, University of Notre Dame
- 2006-2008 Abstract Awards for Scientific Merit, Sleep Research Society
- 2003 Fellow, Vivian Smith Advanced Studies Institute of the International Neuropsychological Society
- 1995 Psychology Research Award for Honors Thesis
- 1995 Departmental Honors in Psychology
- 1994-1995 President, Psi Chi: University of San Diego
- 1992-1995 Dean's List, First Honors
- 1991-1995 University of San Diego Honors Program

## **Teaching**

2018	Appointed Kaneb Center for Teaching and Learning Faculty Fellow, University of Notre Dame
2017	Nominated for the Sheedy Excellence in Teaching Award, University of Notre Dame
2016	Awarded the University of Notre Dame Rev. Edmund P. Joyce Award for Excellence in Undergraduate Teaching
2012	Awarded University of Notre Dame Frank O'Malley Undergraduate Teaching Award
2008-2009	Awarded the Harvard University Derek Bok Center Certificate of Distinction in Teaching
2007-2008	Awarded the Harvard University Derek Bok Center Certificate of Distinction in Teaching
2006-2007	Awarded the Harvard University Derek Bok Center Award for Teaching Excellence

## PUBLICATIONS

<b>h-index:</b>	<b>36</b>	<b>Since 2017</b>	<b>31</b>
<b>i10-index:</b>	<b>56</b>	<b>Since 2017</b>	<b>52</b>
<b>Citations:</b>	<b>6697</b>	<b>Since 2017</b>	<b>3213</b>

### [Symbols indicate trainee involvement post-tenure]

+ Author is my current or former Notre Dame postdoctoral fellow

\* Author is my current or former Notre Dame graduate student

° Author is my current or former Notre Dame undergraduate student

@ Author is a current or former Notre Dame student not mentored by me, but nonetheless involved in a project with me (I include this as I feel it provides evidence of my collaborations and willingness to work with other students)

\*\* Author is a current or former co-mentored graduate student (the applies to only one student, K. Bennion, who was a key student involved in my collaborative NSF grants)

# Author is a former student who I mentored in the past, either as a postdoc at Harvard or as a graduate student at the University of Arizona

## JOURNAL ARTICLES – PEER REVIEWED

(Impact Factors or CiteScores provided for all articles – from year published when available, sourced from Web of Science and Scopus)

### Under Review/Revision

+Denis, D., DiPietro, C., Spreng, R.N., Schacter, D.L., Stickgold, R., & Payne, J.D. (*under revision, JEP:G*). Sleep and testing both strengthen and distort story recollection.

+Denis, D., Bottary, R., **Payne, J.D.**, & Cunningham, T.J. (*under review, Journal of*

*Sleep Research*). Beyond the hypnogram: Moving toward a more detailed analysis of sleep microarchitecture.

Martinez, B.S., Denis, D., Kim, S.Y., DiPietro, C.H., Start, C., Kensinger, E.A., & **Payne, J.D.** (*under review, Cognition and Emotion*). The Effects of Cognitive Reappraisal and Sleep on Emotional Memory Formation

Bottary, R., Kark, S.M., Daley, R. T., <sup>+</sup>Denis, D., <sup>\*</sup>Cunningham, T.J., **Payne, J.D.**, & Kensinger, E.A. (*under review, Affective Science*). Stress and Sleep Correlates of Naturalistic Episodic Memory Retrieval.

Asp, E.W., Khan, L.B., Jonason, A.B., Adkins-Hempel, M.M., Kelsey, A.W. Pardia-Delegado, E., **Payne, J.D.**, Mullineaux, P., Denburg, N.L., & Tranel, D. Truth be known: Emotions cue truth and falsity judgments. (*under review, Psychological Science*).

Bottary, R., Kark, S.M., Daley, R.T., <sup>+</sup>Denis, D., <sup>\*</sup>Cunningham, T., Payne, J.D., & Kensinger, E., A. (*under review, Cognition and Emotion*). Memory for a Stressful Environment is Relatively Unaffected by Stress Reactivity or Post-Stressor Sleep: A Preliminary Report

Nemeth, D., Gerbier E., Born, J., Rickard, T., Albouy, G., Diekelman, S., Fogel, S., Genzel, L., Prehn-Kristensen, A, **Payne, J.D.**, Dresler, M., et al. (*under review, Nature Reviews Neuroscience*). Pitfalls in sleep and memory research and how to avoid them.

<sup>@</sup>Martinez, B.S., Bergeman, C. Yoon, L. & **Payne, J.D.** (*under review, Clinical Psychological Science*). A Dynamic Multilevel Model of Emotion Regulation

## 2022

Denis, D., Sanders, K.E.G., Kensinger, E.A., & **Payne, J.D.** Sleep preferentially consolidates negative aspects of human memory: Well-powered evidence from two large online experiments, *Proceedings of the National Academy of Sciences*, 119 (44), <https://doi.org/10.1073/pnas.220265711>. 2022 Impact Factor: 11.205. CiteScore: 16.2.

Simon, K.C., Nadel, L., & Payne, J.D. The functions of sleep: A cognitive neuroscience perspective. *Proceedings of the National Academy of Sciences*, 119 (44), <https://doi.org/10.1073/pnas.2201795119>. 2022 Impact Factor: 11.205. CiteScore: 16.2.

Ford, J.H., Kim, S.Y., Kark, S., Daley, R., **Payne, J.D.**, & Kensinger, E.A. Distinct stress-related changes in intrinsic amygdala connectivity predict subsequent positive and negative memory performance. *European Journal of Neuroscience*, <http://doi.org/10.1111/ejn.15777> 2022 Impact Factor: 3.386. CiteScore: 5.4.

## 2021

<sup>+</sup>Denis, D., Mylonas, D., Poskanzer, C., Bursal, V., & **Payne, J.D.** Sleep spindles facilitate selective memory consolidation. *Journal of Neuroscience* 5 May 2021, 41 (18) 4088-4099; DOI: <https://doi.org/10.1523/JNEUROSCI.0818-20.2021>. 2020 Impact Factor 6.167. CiteScore: 10.3

@Yeh, N., **Payne, J.D.**, \*Kim, S.Y., Kensinger, E.A., Koen, J.D., & Rose, N.S.  
Medial prefrontal cortex has a causal role in selectively enhanced consolidation of emotional memories after a 24-hour delay: An iTBS study. 2019 Impact Factor 5.674. *Journal of Neuroscience* 21 July 2021, 41 (29) 6273-6280; DOI: <https://doi.org/10.1523/JNEUROSCI.2599-20.2021>. Impact Factor 6.167. CiteScore: 10.3.

Kohler, M., Sandiford, C., Schilds, L., & **Payne, J.D.** Memory for emotional images across sleep versus wake in school-aged children. *Journal of Experimental Child Psychology* Volume 214, 2022, <https://doi.org/10.1016/j.jecp.2021.105308>. 2020 Impact Factor 2.61. CiteScore: 4.4.

\*Cunningham, T.J., Bottary, R., Denis, D. & **Payne, J.D.** Sleep Spectral Power Correlates of Prospective Memory Maintenance. *Learning & Memory*, 28:291–299; DOI: <http://www.learnmem.org/cgi/doi/10.1101/lm.053412.121> 2020 Impact Factor 2.22.

\*Cunningham, T.J., \*Mattingly, S., Wirth, M.M., +Alger, S.E., & **Payne, J.D.**  
Higher post-encoding cortisol benefits the selective consolidation of emotional aspects of memory. *Neurobiology of Learning and Memory*, <https://doi.org/10.1016/j.nlm.2021.107411>. 2019 Impact Factor 2.768. CiteScore 5.8.

+Denis, D., \*Kim, S.Y., Kark, S.M., Daley, R.T., Kensinger, E.A., & **Payne, J.D.**  
Slow oscillation-spindle coupling impairs emotional memory consolidation following stress. *European Journal of Neuroscience*, <https://doi.org/10.1111/ejn.15132>. 2019 Impact Factor: 3.115.

Wang, C., \*Mattingly, S., **Payne, J.D.**, Lizardo, O., & Hachen, D. The impact of social networks on sleep among a cohort of college students. *SSM – Population Health*, Vol. 16, December 2021 DOI: <https://doi.org/10.1016/j.ssmph.2021.100937> 2020 Impact Factor 2.74. CiteScore: 3.1.

## 2020

\*Kim, S.Y., & **Payne, J.D.** (2020). Neural correlates of sleep, stress, and selective memory consolidation. *Current Opinion in Behavioral Sciences*. 33, 57-64. 2018 Impact Factor: 3.990. CiteScore: 6.6.

Rodriguez-Seijas, C., Fields, E.C., Bottary, R., Kark, S.M., Goldstein, E., Kensinger, E.A., **Payne, J.D.**, & Cunningham, T.J. (2020). Comparing the Impact of COVID-19-Related Social Distancing on Mood and Psychiatric Indicators in Sexual and Gender Minority (SGM) and Non-SGM Populations. *Frontiers in Psychiatry*, <https://doi.org/10.3389/fpsy.2020.590318>. 2017 Impact Factor: 3.532.

## 2019

\*Kim, S.Y., Kark, S.M., Daley, R.T., +Alger, S.E., @Rebouças, D., Kensinger, E.A., & **Payne,**

**J.D.** (2019). Interactive effects of stress reactivity and rapid eye movement sleep theta activity on emotional memory formation. *Hippocampus*, 1-13. DOI: 10.1002/hipo.23138. 2018 Impact Factor: 3.404.

<sup>o</sup>Huguet, M., **Payne, J.D.**, <sup>\*</sup>Kim, S.Y., & <sup>+</sup>Alger, S.E. (2019). Overnight Sleep Benefits Both Neutral and Negative Direct Associative and Relational Memory. *Cognitive, Affective, & Behavioral Neuroscience*, 19(6), 1391-1403. DOI: <https://doi.org/10.3758/s13415-019-00746-8>. 2018 Impact Factor: 2.206.

<sup>@</sup>Vargas, I., **Payne, J.D.**, Muench, A., Kuhlman, K.R., & Lopez-Duran, N.L. (2019). Acute Sleep Deprivation and the Selective Consolidation of Emotional Memories. *Learning & Memory*, 26(6), 176-181. DOI: [10.1101/lm.049312.119](https://doi.org/10.1101/lm.049312.119). 2018 Impact Factor: 2.359.

<sup>o</sup>Bowman, M.A., <sup>\*</sup>Cunningham, T.J., <sup>@</sup>Levin-Aspenson, H.F., <sup>@</sup>O'Rear, A.E., <sup>@</sup>Pauszek, J.R., <sup>@</sup>Ellickson-Larew, S., <sup>@</sup>Martinez, B.S., & **Payne, J.D.** (2019). Anxious, but not depressive, symptoms are associated with poorer prospective memory performance in healthy college students: Preliminary evidence using the tripartite model of anxiety and depression. *Journal of Clinical and Experimental Neuropsychology*, 41(7), 694-703. DOI: [10.1080/13803395.2019.1611741](https://doi.org/10.1080/13803395.2019.1611741). 2018 Impact Factor: 1.958.

Bolinger, E., <sup>\*</sup>Cunningham, T.J., **Payne, J.D.**, <sup>o</sup>Bowman, M.A., Bulca, E., Born, J., & Zinke, K. (2019). Sleep's benefits to emotional processing emerge in the long term. *Cortex*, 120, 457-470. 2018 Impact Factor: 4.009.

## 2018

<sup>\*</sup>Cunningham, T.J., Leal, S.L., Yassa, M.A., & **Payne, J.D.** (2018). Post-encoding stress enhances mnemonic discrimination of negative stimuli. *Learning & Memory*, 25(12), 611-619. DOI: <http://www.learnmem.org/cgi/doi/10.1101/lm.047498.118>. 2018 Impact Factor: 2.373.

<sup>+</sup>Alger, S.E., Kensinger, E.A., & **Payne, J.D.** (2018). Preferential consolidation of emotionally salient information during a nap is preserved in middle age. *Neurobiology of Aging*, 68, 34-47. 2018 Impact Factor: 4.398.

**Payne, J.D.**, & Kensinger, E.A. (2018). Stress, sleep, and the selective consolidation of emotional memories. *Current Opinion in Behavioral Sciences*, 19, 36-43. DOI: <http://dx.doi.org/10.1016/j.cobeha.2017.09.006>. 2018 Impact Factor: 3.422.

<sup>+</sup>Alger, S.E., <sup>o</sup>Chen, S., & **Payne, J.D.** (2018). Do Different Salience Cues Compete for Dominance in Memory over a Daytime Nap? *Neurobiology of Learning and Memory*, 160, 48-57. DOI: <https://doi.org/10.1016/j.nlm.2018.06.005>. 2018 Impact Factor: 3.010.

## 2017

<sup>\*</sup>Pardilla-Delgado, E., & **Payne, J.D.** (2017). The impact of sleep on true and false memory across long delays. *Neurobiology of Learning and Memory*, 137, 123-133. 2017 Impact Factor: 3.244.

\*Pardilla-Delgado, E., & **Payne, J.D.** (2017). The Deese-Roediger-McDermott (DRM) task: A simple cognitive paradigm to investigate false memories in the laboratory. *JOVE-Journal of Visualized Experiments*, 119, e54793. Published online, DOI: 10.3791/54793. 2017 Impact Factor: 1.184.

Chatburn, A., Kohler, M.J., **Payne, J.D.**, & Drummond, S.P. (2017). The effects of sleep restriction and sleep deprivation in producing false memories. *Neurobiology of Learning and Memory*, 137, 107–113. DOI: 10.1016/j.nlm.2016.11.017. 2017 Impact Factor: 3.244.

\*\*Bennion, K.A., **Payne, J.D.**, & Kensinger, E.A. (2017). Residual effects of emotion are reflected in enhanced visual activity after sleep. *Cognitive, Affective, & Behavioral Neuroscience*, 17(2), 290-304. DOI: 10.3758/s13415-016-0479-3. 2017 Impact Factor: 2.565.

@Blaxton, J.M., Bergeman, C.S., Whitehead, B.R., Braun, M.E., & **Payne, J.D.** (2017). Relationships among nightly sleep quality, daily stress, and daily affect. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences*, 72(3), 363-372. DOI: 10.1093/geronb/gbv060. 2017 Impact Factor: 3.054.

## 2016

\*Pardilla-Delgado, E., +Alger, S.E., \*Cunningham, T.J., °Kinealy, B., & **Payne, J.D.** (2016). Effects of post-encoding stress on performance in the DRM false memory paradigm. *Learning & Memory*, 23(1), 46-50. DOI: <http://www.learnmem.org/cgi/doi/10.1101/lm.039354.115>. 2016 Impact Factor: 2.894.

+Alger, S.E., & **Payne, J.D.** (2016). The differential effects of emotional salience on direct associative and relational memory during a nap. *Cognitive, Affective, & Behavioral Neuroscience*, 16(6), 1150-1163. DOI: 10.3758/s13415-016-0460-1. 2016 Impact Factor: 3.263.

\*\*Bennion, K.A., **Payne, J.D.**, & Kensinger, E.A. (2016). The impact of napping on memory for future-relevant stimuli: Prioritization among multiple salience cues. *Behavioral Neuroscience*, 130(3), 281-289. DOI: <http://dx.doi.org/10.1037/bne0000142> 2016 Impact Factor: 2.453.

## 2015

**Payne, J.D.**, Kensinger, E.A., Wamsley, E.J., Spreng, R.N., +Alger, S.E., #Gibler, K., ... & Stickgold, R. (2015). Napping and the selective consolidation of negative aspects of scenes. *Emotion*, 15(2), 176-186. DOI: 10.1037/a0038683. 2015 Impact Factor: 3.082.

+Alger, S.E., \*Chambers, A.M., \*Cunningham, T.J., & **Payne, J.D.** (2015). The role of sleep in human declarative memory consolidation. *Current Topics in Behavioral Neurosciences*, 25, 269-306. DOI: 10.1007/7854\_2014\_341. 2015 CiteScore: 2.50.

\*\*Bennion, K.A., Mickley Steinmetz, K.R., Kensinger, E.A., & **Payne, J.D.** (2015). Sleep and cortisol interact to support memory consolidation. *Cerebral Cortex*, 25(3), 646-657. DOI: 10.1093/cercor/bht255. 2015 Impact Factor: 8.285.

\*\*Bennion, K.A., **Payne, J.D.**, & Kensinger, E.A. (2015). Selective effects of sleep on emotional memory: What mechanisms are responsible? *Translational Issues in Psychological Science*, 1(1), 79-88. DOI: <http://dx.doi.org/10.1037/tps0000019>. 2015 Impact Factor: Not yet ranked (2018 Impact Factor: Not yet ranked).

## 2014

**Payne, J.D.** (2014). The (gamma) power to control our dreams. *Nature Neuroscience*, 17(6), 753-755. 2014 Impact Factor: 16.095.

\*Cunningham, T.J., Crowell, C.R., +Alger, S.E., Villano, M.A., \*Mattingly, S.M., & **Payne, J.D.** (2014). Psychophysiological arousal at encoding leads to reduced reactivity but enhanced emotional memory following sleep. *Neurobiology of Learning and Memory*, 114, 155-164. 2014 Impact Factor: 3.652.

\*Cunningham, T.J., Chambers, A.M., & **Payne, J.D.** (2014). Prospection and emotional memory: how expectation affects emotional memory formation following sleep and wake. *Frontiers in Psychology*, 5, 862. 2014 Impact Factor: 2.560.

\*\*Bennion, K.A., Steinmetz, K.R.M., Kensinger, E.A., & **Payne, J.D.** (2014). Eye tracking, cortisol, and a sleep vs. wake consolidation delay: Combining methods to uncover an interactive effect of sleep and cortisol on memory. *JOVE-Journal of Visualized Experiments*, 88, e51500. Published Online, DOI: 10.3791/51500. 2014 Impact Factor: 1.325.

\*Chambers, A.M. & **Payne, J.D.** (2014). Neural plasticity and learning: The consequences of sleep. *AIMS Neuroscience*, 1(2), 150-155. DOI: 10.3934/Neuroscience.2014.2.150. 2014 CiteScore: Not yet ranked (2018 CiteScore: 1.05).

**Payne, J.D.** (2014). Seeing the forest through the trees. *Sleep*, 37(6), 1029-1030. 2014 Impact Factor: 4.591.

\*Chambers, A.M., & **Payne, J.D.** (2014). The influence of sleep on the consolidation of positive emotional memories: Preliminary evidence. *AIMS Neuroscience*, 1(1), 39-51. DOI: 10.3934/Neuroscience2014.1.39. 2014 CiteScore: Not yet ranked (2018 CiteScore: 1.05).

## 2013

\*Chambers, A.M., & **Payne, J.D.** (2014). Laugh yourself to sleep: Memory consolidation for humorous information. *Experimental Brain Research*, 232(5), 1415-1427. DOI: 10.1007/s00221-013-3779-7. 2014 Impact Factor: 2.036.

## 2012

**Payne, J.D.**, \*Chambers, A.M., & Kensinger, E.A. (2012). Sleep promotes lasting changes in

selective memory for emotional scenes. *Frontiers in Integrative Neuroscience*, 6, 108. DOI: 10.3389/fnint.2012.00108. 2012 Impact Factor: Not yet ranked (2018 Impact Factor: 2.810).

**Payne, J.D.**, Tucker, M.A., Ellenbogen, J.M., Wamsley, E.J., Walker, M.P., Schacter, D.L., & Stickgold, R. (2012). Memory for semantically related and unrelated declarative information: The benefit of sleep, the cost of wake. *PLoS ONE*, 7(3), e33079. 2012 Impact Factor: 3.730.

### 2011

**Payne, J.D.** (2011a). Sleep on it: Stabilizing and transforming memories during sleep. *Nature Neuroscience*, 14(3), 272-274. 2011 Impact Factor: 15.531.

**Payne, J.D.**, & Kensinger, E.A. (2011). Sleep leads to qualitative changes in the emotional memory trace: Evidence from fMRI. *Journal of Cognitive Neuroscience*, 23(6), 1285-1297. 2011 Impact Factor: 5.175.

Steinberger, A., **Payne, J.D.**, & Kensinger, E.A. (2011). The effect of cognitive reappraisal on the emotional memory trade-off. *Cognition & Emotion*, 25(7), 1237-1245. 2011 Impact Factor: 2.522.

#Hoscheidt, S.M., Nadel, L., **Payne, J.D.**, & Ryan, L. (2011). Hippocampal activation during retrieval of spatial context from episodic and semantic memory. *Behavioural Brain Research*, 212, 121-132. 2011 Impact Factor: 3.417.

**Payne, J.D.** (2011b). Learning, memory, and sleep in humans. *Sleep Medicine Clinics*, 6(1), 15-30. 2011 CiteScore: 0.75.

### 2010

**Payne, J.D.** (2010). Memory consolidation, the diurnal rhythm of cortisol, and the nature of dreams: A new hypothesis. *International Review of Neurobiology*, 92, 101-136. 2010 Impact Factor: 2.183.

#Tamminen, J., **Payne, J.D.**, Stickgold, R., Wamsley, E.M., & Gaskell, M. (2010). Sleep spindle activity is associated with the integration of new memories and existing knowledge. *Journal of Neuroscience*, 30(43), 14356-14360. 2010 Impact Factor: 7.271.

Waring, J.D., **Payne, J.D.**, Schacter, D.L., & Kensinger, E.A. (2010). Impact of individual differences upon emotion induced memory trade-offs. *Cognition & Emotion*, 24, 150-167. 2010 Impact Factor: 2.083.

**Payne, J.D.**, & Kensinger, E.A. (2010). Sleep's role in the consolidation of emotional episodic memories. *Current Directions in Psychological Science*, 19(5), 290-295. 2010 Impact Factor: 3.490.

Wamsley, E.J., Tucker, M.A., **Payne, J.D.**, & Stickgold, R. (2010). A brief nap is beneficial for human route learning: the role of initial skill level and EEG spectral power. *Learning & Memory*, *17*, 332-336. 2010 Impact Factor: 4.607.

Wamsley, E.J., Tucker, M.A., **Payne, J.D.**, & Stickgold, R. (2010). Dreaming of a learning task is associated with enhanced sleep-dependent memory consolidation. *Current Biology*, *20*(9), 850-855. 2010 Impact Factor: 10.026.

### 2009

**Payne, J.D.**, Schacter, D.L., Tucker, M.A., Wamsley, E., #Huang, L., Walker, M.P., & Stickgold, R. (2009). The role of sleep in false memory formation. *Neurobiology of Learning and Memory*, *92*, 327-334. 2009 Impact Factor: 3.479.

### 2008

**Payne, J.D.**, Stickgold, R., #Swanberg, K., & Kensinger, E.A. (2008). Sleep preferentially enhances memory for emotional components of scenes. *Psychological Science*, *19*(8), 781-788. 2008 Impact Factor: 4.812.

### 2007

**Payne, J.D.**, Jackson, E.D., #Hoscheidt, S., Ryan, L., Jacobs, W.J., & Nadel, L. (2007). Stress administered prior to encoding impairs neutral but enhances emotional long-term episodic memories. *Learning & Memory*, *14*, 861-868. 2007 Impact Factor: 4.037.

Ellenbogen, J.M., Hu, P., **Payne, J.D.**, Titone, D., & Walker, M.P. (2007). Human relational memory requires time and sleep. *Proceedings of the National Academy of Sciences*, *104*, 7723-7728. 2007 Impact Factor: 9.598.

### 2006

**Payne, J.D.**, Jackson, E.D., Ryan, L., #Hoscheidt, S., Jacobs, W.J., & Nadel, L. (2006). The impact of stress on memory for neutral vs. emotional aspects of episodic memory. *Memory*, *14*(1), 1-16. 2006 Impact Factor: 1.669.

Ellenbogen, J.M., **Payne, J.D.**, & Stickgold, R. (2006). Sleep's role in declarative memory consolidation: Passive, permissive, active or none? *Current Opinion in Neurobiology*, *16*, 716-722. 2006 Impact Factor: 9.286.

Jackson, E.D., **Payne, J.D.**, Nadel, L., & Jacobs, W.J. (2006). Stress differentially modulates fear conditioning in healthy men and women. *Biological Psychiatry*, *59*, 516-522. 2006 Impact Factor: 7.154.

### 2005 and Prior

**Payne, J.D.**, & Nadel, L. (2004). Sleep, dreams and memory consolidation: The role of the stress hormone cortisol. *Learning & Memory*, *11*, 671-678. 2004 Impact Factor: 4.694.

**Payne, J.D.**, Nadel, L., Allen, J.J.B., Thomas, K.G.F., & Jacobs, W.J. (2002). The effects of experimentally induced stress on false recognition. *Memory*, *10*, 1-6. 2002 Impact Factor:

1.127.

Nadel, L., **Payne, J.D.**, & Jacobs, W.J. (2002). The relationship between episodic memory and context: Clues from memory errors made while under stress. *Physiological Research*, 9, 74-89. 2002 Impact Factor: 0.984.

Deutsch, F.M., Servis, L.J., & **Payne, J.D.** (2001). Paternal participation in childcare and its effects on children's self-esteem. *Journal of Family Issues*, 22, 1000-1024. 2001 Impact Factor: 1.000.

### **JOURNAL ARTICLES – INVITED AND EDITED**

**Payne, J.D.**, Britton, W.B., Bootzin, R.B., & Nadel, L. (2005). Beyond acetylcholine: Next steps for sleep and memory research. *Behavioral and Brain Sciences*, 28, 77. 2005 Impact Factor: 9.885.

### **BOOK CHAPTERS**

**Payne, J.D.** (2020). Stress and sleep interact to selectively consolidate and transform negative emotional memories: Implications for Clinical Treatment. In R.D. Lane & L. Nadel (Eds.), *Neuroscience of Enduring Change: Implications for Psychotherapy*. Oxford, UK: Oxford University Press.

+Alger, S.E., & **Payne, J.D.** (2018). Sleep and Memory. In J.T. Wixted, E.A. Phelps, & L. Davachi (Eds.), *Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience* (4<sup>th</sup> ed., Vol. 1, pp. 101-144). Hoboken, NJ: Wiley. DOI: 10.1002/9781119170174.

Cunningham, T.J., & **Payne, J.D.** (2017). Emotional memory consolidation during sleep. In N. Axmacher & B. Rasch (Eds.), *Cognitive Neuroscience of Memory Consolidation* (pp.133-159). Switzerland: Springer, Cham. DOI: <https://doi.org/10.1007/978-3-319-45066-7>.

+ Alger, S.E., Pardilla-Delgado, E., Mattingly, S.M., Cunningham, T.J., & **Payne, J.D.** (2017). The Cognitive psychology of sleep and memory. In J.H. Byrne (Ed.), *Learning and Memory: A Comprehensive Reference* (2<sup>nd</sup> ed., Vol. 4, pp. 571-596). Cambridge, MA: Academic Press. DOI: <https://doi.org/10.1016/B978-0-12-809324-5.21062-6>.

\*Pardilla-Delgado, E., \*Mattingly, S.M., +Alger, S.E., \*Chambers, A., \*Cunningham, T. & **Payne, J.D.** (2015). Sleep's role in the consolidation and integration of declarative memories. In M. Sakakibara & E. Ito (Eds.), *Memory Consolidation* (pp. 199-234). Hauppauge, NY: Nova Science Publishers.

\*Chambers, A.M. & **Payne, J.D.** (2015). The memory function of sleep: How the sleeping

brain promotes learning. In D.R. Addis, M. Barense , & A. Duarte (Eds.), *The Wiley Handbook on the Cognitive Neuroscience of Memory* (pp. 218-243). Hoboken, NJ: Wiley. DOI: 10.1002/9781118332634. (Peer-reviewed).

+Alger, S., \*Chambers, A., \*Cunningham, T., & **Payne, J.D.** (2015). The role of sleep in human declarative memory consolidation. In P. Meerlo, R.M. Benca, & T. Abel (Eds.), *Sleep, Neuronal Plasticity and Brain Function* (pp. 269-306). Berlin, Germany: Springer-Verlag. DOI: 10.1007/978-3-662-46878-4.

\*Cunningham, T., \*Pardilla-Delgado, E., Alger, S.E., & **Payne, J.D.** (2014). The role of REM sleep in emotional memory and affective reactivity in humans. In C.L. Saylor (Ed.), *REM Sleep: Characteristics, Disorders and Physiological Effects* (pp. 1-28). Hauppauge, NY: Nova Biomedical.

#Hoscheidt, S.M., Dongaonkar, B., **Payne, J.D.**, & Nadel, L. (2013). Emotion, stress, and memory. In D. Reisberg (Ed.), *The Oxford Handbook of Cognitive Psychology* (pp. 557-570). New York, NY: Oxford University Press. DOI: 10.1093/oxfordhb/9780195376746.013.0035.

**Payne, J.D.**, Ellenbogen, J.M., Walker, M.P., & Stickgold, R. (2008). The role of sleep in memory consolidation. In J.H. Byrne (Ed.), *Concise Learning and Memory: The Editor's Selection* (1<sup>st</sup> ed., pp 547-569). Cambridge, MA: Academic Press.

**Payne, J.D.**, Ellenbogen, J.M., Walker, M.P., & Stickgold, R. (2008). The role of sleep in memory consolidation. In J.H. Byrne (Ed.), *Learning and Memory: A Comprehensive Reference* (1<sup>st</sup> ed., Vol. 2, pp. 663-685). Cambridge, MA: Academic Press.

**Payne, J.D.**, Nadel, L., Britton, W.B., & Jacobs, W.J. (2004). The biopsychology of trauma and memory. In D. Reisberg & P. Hertel (Eds.), *Memory and Emotion* (pp. 76-128). Oxford, UK: Oxford University Press.

Nadel, L., & **Payne, J.D.** (2002). The hippocampus, wayfinding, and episodic memory. In P.E. Sharp (Ed.), *The neural basis of navigation: Evidence from single cell recording* (pp. 235-247). New York, NY: Springer US.

## TEACHING EXPERIENCE

### University of Notre Dame

2014-present Student-Driven Seminar on Sleep and Stress:  
Cognitive, Clinical, and Developmental Issues (graduate level seminar)

2010-present The Sleeping Brain (seminar)

2010-present Introduction to Cognitive Neuroscience (lecture)

### Harvard University

2006-2009 Neurobiology 95hjf, The Sleeping Brain (seminar)

## **University of Arizona**

2001-2004 Human Memory (lecture)

## **Sample Guest Lectures**

- Fall, 19/20/21 Introduction to the Neuroscience and Behavior Major, Dr. Brad Gibson and Dr. Joe O'Tousa, University of Notre Dame (*Sleep and Stress Neuroscience – a Journey Through Academia and Business*)
- Fall, 2016 Stress and Stress Hormones, Dr. Michelle Wirth, University of Notre Dame (*Stress and memory*)
- Fall, 2010 Biological Psychology, Dr. Michelle Wirth, University of Notre Dame (*Sleep and memory*)
- Fall, 2008 Cognitive Neuroscience, Dr. Sue Corkin, MIT (*The effect of sleep and stress on human memory*)
- Spring, 2008 Topics in Cognitive Neuroscience, Dr. Jessica Andrews, Harvard University (*Sleep and memory*)

## **Laboratory Instructor (Mount Holyoke College)**

1998-1999 Statistics

1997-1998 Experimental Methods

## **Teaching Assistantships**

2003 Human Perception (University of Arizona)

2002 Psychology of Gender (University of Arizona)

## **MENTORING EXPERIENCE**

### GRADUATE AND POSTDOCTORAL MENTORSHIP

- 2020-present Postdoctoral Advisor, Dr. Kristin Grunewald, University of Notre Dame
- 2019-present Postdoctoral Advisor, Dr. Dan Denis, University of Notre Dame
- 2019-2021 Graduate Student Advisor, Chaz Rich, University of Notre Dame
- 2019-present Graduate Student Advisor, Carissa DiPietro, University of Notre Dame
- 2016-present Graduate Student Advisor, Sara Kim, University of Notre Dame
- 2016-present Graduate Student Advisor, Tony Martinez, University of Notre Dame
- 2012-2017 Postdoctoral Advisor, Dr. Sara Alger, University of Notre Dame (*now Chief of Scientific Planning, Sleep Research Center at Walter Reed in DC*)
- 2012-2017 Graduate Student Advisor, Stephen Mattingly, University of Notre Dame (*now a postdoc at Notre Dame*)
- 2011-2017 Graduate Student Advisor, Enma Pardilla-Delgado, University of Notre Dame (*now a postdoc at Harvard Medical School*)
- 2011-2018 Graduate Student Advisor, Tony Cunningham, University of Notre Dame (*now a postdoc at Harvard Medical School*)
- 2010-2015 Graduate Student Advisor, Alexis Chambers, University of Notre Dame (*now an Assistant Professor of Psychology at North Central College*)
- 2008-2009 Master's thesis project advisor, Jakke Tamminen, Harvard Medical School

2006-2007 Master's thesis project advisor, Mahssa Karimi, Harvard Medical School

#### UNDERGRADUATE MENTORSHIP

- 2019-2021 Honors/Thesis Advisor, Mario Tcheukado, University of Notre Dame  
2019-2021 Honors/Thesis Advisor, Jahlecia Gregory, University of Notre Dame  
2019-2021 Honors/Thesis Advisor, Devin Diggs, University of Notre Dame  
2017-2018 Honors/Thesis Advisor, Makenzie Huguét, Rosemary Pfaff, Adam Uppendahl, University of Notre Dame  
2016-2017 Honors/Thesis Advisor, Andi Phillips, Natalie Pottschmidt, Michael Broderick, University of Notre Dame  
2015-2016 Honors/Thesis Advisor, Marissa Bowman, Michelle Williams, University of Notre Dame  
2015-2016 Senior Thesis Advisor, Shirley Chen, Anna Marie Nguyn, University of Notre Dame  
2013-2014 Honors/Thesis Advisor, Michael Dai, Andrea Rabassa, Patrick Samuels, University of Notre Dame  
2012-2013 Honors/Thesis Advisor, Jennifer Rawding, Brian Kinnealy, Eric Stumpf, Christina Rogers, Rebecca Tracy, University of Notre Dame  
2011-2012 Honors Thesis Advisor, Bridget Quinn, Chris Stare, Brooke Reid, University of Notre Dame  
2010-2011 Honors Thesis Advisor, Stephen Mattingly, University of Notre Dame  
2008-2009 Undergraduate honors thesis advisor, Erin Miles, Harvard University: "The Role of Sleep in Reality Monitoring and Emotional False Memory Formation"  
2008-2009 Undergraduate honors thesis project co-advisor, Alison Wagoner, Boston College: "Rapid Eye Movement Sleep and Emotional Memory Consolidation"  
2008 Undergraduate summer research fellowship advisor, Sara Teicholtz, Wellesley College: "Relaxed Wakefulness vs. Sleep: Effects on Memory Consolidation"  
2008 Undergraduate summer research fellowship advisor, Kyle Gibler, Harvard University: "The Polysomnological Correlates Memory for Semantically Related and Unrelated Word lists Following Sleep". *Kyle was awarded both Harvard's PRISE and Herschel Smith Fellowships for this proposal.*  
2007-2008 Undergraduate honors thesis project advisor, Li-Wen Huang, Harvard University: "The Effect of a Brief Daytime Nap on the Consolidation of Declarative Memories". *This thesis won the Harvard Hoopes Prize, which is a University-wide thesis award for excellence in research. The student receives \$2,500 and the supervisor receives \$700.*  
2006-2007 Undergraduate research supervisor, Harvard University  
2001-2005 Undergraduate research advisor, University of Arizona

#### HIGH SCHOOL AND OTHER MENTORSHIP

- 2012-2013 High School Student Research Advisor, Pooja Patel, University of Notre Dame  
2002-2004 High School student research advisor, University of Arizona  
2003-2005 High School research project advisor, University of Arizona  
1994-1995 Peer Advisor, Writing Center, University of San Diego  
1994-1993 Peer Counselor, University of San Diego

## UNIVERSITY LEADERSHIP ROLES/SERVICE

### University of Notre Dame

- 2021-present Member, Executive CAP, Psychology Department
- 2020-2022 Member, College Committee on Diversity and Inclusion
- 2020-2022 Member, University Working Group on Emotional Support and Wellbeing
- 2020-2021 Member, Clinical Psychology Search Committee, Diversity Representative
- 2019-2022 Director, Cognition, Brain, and Behavior (CBB) Program, Psychology Department
- 2019-present Graduate Studies Representative; CBB area representative
- 2019-2022 Member, Diversity committee, Psychology Department
- 2019 Member, External Review committees (research active faculty, neuroscience and behavior)
- 2016-2018 Member, Provost's Committee on Teaching
- 2016-2018 Member, Joyce Teaching Award Committee
- 2016-2017 Member, Diversity committee, Psychology Department
- 2016-2017 Co-Director, Cognition, Brain, and Behavior (CBB) Program, Psychology Department
- 2016-2017 Faculty member, Student Well-Being Coalition (through the McDonald Center for Student Wellness)
- 2016 Speaker, "The Neuroscience of Learning Well", Address given to incoming law class of 2016-2017, Law School
- 2015 Speaker, Notre Dame Undergraduates, "Sleep Well to Learn Well" (given twice in 2015)
- 2015-2017 Member, Undergraduate Studies Committee
- 2015-2017 Member, College Council
- 2015 Member, Cognition, Brain, and Behavior Hiring Committee
- 2015-2016 Member, Neuroscience and Behavior Steering Committee
- 2015 Member, Clinical Handbook Committee
- 2014 Member, Hiring Committee, Neuroscience and Behavior
- 2014 Speaker, "Nearly Tenured Faculty: The Notre Dame Experience", New Faculty Orientation
- 2012 Member, Clinical area graduate applications committee
- 2012-2013 Member, Undergraduate studies committee, Psychology Department
- 2011-2012 Member, Working Group on Human Nature (with Agustin Fuentes, funded by the John Templeton Foundation grant "The Human Nature(s) Project")
- 2011 Speaker, "Sleep for Students", Psychology Club
- 2010 Member, Kaneb Center Panel, Navigating the Academic Job Market
- 2010 Member, Departmental Hiring Committee (Position in Behavioral Oncology), Department of Psychology
- 2010 Co-Founder, Conversations in Brain, Mind and Behavior (sponsored by Provost Burish in an effort to explore overlapping research interests in Neuroscience across campus)
- 2010-2017 Co-Director, CBB graduate studies committee
- 2010-2011 Member, College Council

- 2010-2014 Co-Founder, Notre Dame/Boston College Cognitive Neuroscience Exchange Program (allows undergraduate students from Notre Dame to spend the summer at Boston College learning fMRI, and Boston College students to spend the summer at Notre Dame learning sleep EEG/PSG)
- 2010 Judge, Siemens Math Science and Technology Regional Competition
- 2009-2017 Co-Supervisor, Student Neuroscience Club (Student Brain, Mind and Behavior)
- 2009 Member, Departmental Colloquium Committee, Department of Psychology

### **University of Arizona**

- 2003 Graduate student representative for the Cognitive Psychology hiring committee
- 2002 Departmental representative to Graduate Student Council
- 2003 Co-organizer, prospective student weekend
- 2003 Co-organizer, weekly memory meeting

### **OTHER DEPARTMENTAL SERVICE**

#### **Dissertation committee member: University of Notre Dame and other**

- Nick Yeh (2022) CBB Program, University of Notre Dame
- Morgan Munsen (2022) CBB Program, University of Notre Dame
- Alianna Wen (2021) Clinical Program, University of Notre Dame
- Jovian Lam (2021) Clinical Program, University of Notre Dame
- Patrick Kirkland (2021) CBB Program, University of Notre Dame
- Sara Kim (2021) CBB Program, University of Notre Dame
- Jin Rui (2021) Department of Psychology, University of Hong Kong
- Julaine Zenk (2019-2020) CBB Program, University of Notre Dame
- Jerry Fisher (2018-2019) CBB Program, University of Notre Dame
- Andrea Tamplin (Cognitive Program, University of Notre Dame)
- Elizabeth Hendricks (Clinical Program, University of Notre Dame)
- Anne Thompson (Clinical Program, University of Notre Dame)
- Sabine Krawietz (Cognitive Program, University of Notre Dame)
- Marcia Braun (Developmental Program, University of Notre Dame)
- Windy McNerny (Cognitive Program, University of Notre Dame)
- Goali Auzeen Saedi (Clinical Program, University of Notre Dame)
- Alissa Russel (Developmental Program, University of Notre Dame)
- Alix Mellor (Psychiatry Program, University of Western Australia)
- Matthew Tucker (doctoral dissertation, City College, NYC)
- Erin Wamsley (doctoral dissertation, City College, NYC)

#### **Prelim/Comps committee member: University of Notre Dame**

- Yeonsoo Park (2022) Clinical Program, University of Notre Dame
- Alianna Wen (2021) Clinical Program, University of Notre Dame
- Tony Martinez (2021) Clinical Program, University of Notre Dame
- Patrick Kirkland (2021) CBB Program, University of Notre Dame
- Morgan Wildham (2021) CBB Program, University of Notre Dame
- Yeonsoo Park (2021) Clinical Program, University of Notre Dame

Jovian Lam (2021) Clinical Program, University of Notre Dame  
Nick Yeh (2021) CBB Program, University of Notre Dame  
Jude Ash (2020) Clinical Program, University of Notre Dame  
Sara Kim (2020) CBB Program, University of Notre Dame  
Julaine Zenk (2019) CBB Program, University of Notre Dame  
Alainna Wen (2019) Clinical Program, University of Notre Dame  
Brandy Martinez (2018) Clinical Program, University of Notre Dame  
Molly O’Neill (2018) Developmental Program, University of Notre Dame  
Sabine Krawietz (Cognitive Program, University of Notre Dame)  
Andrea Tamplin (Cognitive Program, University of Notre Dame)  
Anne Thompson (Clinical Program, University of Notre Dame)

**MA thesis committee member: University of Notre Dame**

Chaz Rich (2021) Clinical Program, University of Notre Dame  
Morgan Wildham (2020) CBB Program, University of Notre Dame  
Tony Martinez (2020) Clinical Program, University of Notre Dame  
Jovian Lam (2019) Clinical Program, University of Notre Dame  
Sara Kim (2019) CBB Program, University of Notre Dame  
Nick Yeh (2019) CBB Program, University of Notre Dame  
Molly O’Neill (2018) Developmental Program, University of Notre Dame  
Brandy Martinez (Clinical Program, University of Notre Dame)  
Julia Paulson (Clinical Program, University of Notre Dame)  
Julaine Zenk (CBB Program, University of Notre Dame)  
Allison Gaffey (Clinical Program, University of Notre Dame)  
Sabine Krawietz (Cognitive Program, University of Notre Dame)

**PROFESSIONAL SERVICE**

2019-present **Editor in Chief**, *Experimental Results, Psychology* (Cambridge University Press)  
2020-present **Associate Editor**, *Learning & Memory*  
2017-present **Associate Editor**, *Journal of Experimental Psychology: General* (American Psychological Association Press)  
2010-2019 **Editorial Board Member**, *Frontiers in Sleep and Chronobiology*  
2016 **Cognitive Neuroscience Trainee Professional Development Panel**, *Cognitive Neuroscience Society*  
2020-present **Member**, Memory Disorders Research Society (MDRS) Committee on Diversity, Equity, and Inclusion  
2013-present **Board Member**, Start School Later (created to move high school start times forward nation-wide)  
2012-2019 **Neuroscience Advisory Board**, *Neuroleadership Institute*  
2009-2013 **Educational Programs Committee Member**, *Sleep Research Society*  
2009-2015 **Medical Advisory Board**, *Humana*

**Ad Hoc Reviewer:** *Affective Science • American Journal of Psychiatry • Applied Cognitive Psychology • Behavioural Brain Research • Behavioral Neuroscience • Biology of Mood and Anxiety Disorders • Biological Psychiatry • Cerebral Cortex • Cognitive, Affective and Behavioral Neuroscience (CABN) • Cognition • Cognition and Emotion • Consciousness and*

*Cognition • Current Biology • Current Opinion in Psychological Science • Developmental Science • Emotion • Experimental Brain Research • European Journal of Neuroscience • Future Neurology • Journal of Clinical Psychiatry • Journal of Cognitive Neuroscience • Journal of Neuroscience • Journal of Physiology • Learning and Memory • Memory • Nature Communications • Nature Behavior • Nature Neuroscience • Neurobiology of Learning and Memory • Neurobiology of Aging • Neuron • Neuroscience • Neuroscience and Biobehavioral Reviews • Perspectives on Psychological Science • PLoS ONE • Physiology and Behavior • PNAS • Psychological Bulletin • Psychological Science • Psychological Review • Psychoneuroendocrinology • Psychonomic Bulletin and Review • Scientific Reports • SLEEP • Sleep Medicine • Social, Cognitive and Affective Neuroscience (SCAN) • Social & Personality Psychology Compass • Stress • Trends in Neuroscience • Wiley Interdisciplinary Reviews: Cognitive Science*

### **Grant Reviewer:**

2019 *National Institutes of Health, 2019/10 NPAS*  
 Neural Basis of Psychopathology, Addictions and Sleep Disorders (ad hoc)

2019 *National Science Foundation, Social Psychology* (ad hoc)

2019 *National Science Foundation, Perception, Action, and Cognition* (ad hoc)

2013 *National Science Foundation, Open Research Area for the Social Sciences* (ad hoc)

2013 *Netherlands Organization for Scientific Research, The dynamic nature of emotional memory: toward a network understanding of emotional memory consolidation* (ad hoc)

2012 *National Science Foundation, Cognitive Neuroscience*, (ad hoc)

2010 *Netherlands Organization for Scientific Research, Making Memories, Replay or Decay* (ad hoc)

2010 *National Science Foundation, Cognitive Neuroscience* (ad hoc)

2010 *National Science Foundation, Perception, Action and Cognition* (ad hoc)

2009 *South African Research Council, The relationship between cortisol and dreaming in patients taking corticosteroid medications* (ad hoc)

### **PROFESSIONAL MEMBERSHIPS**

*Psychonomic Society (Fellow) • Memory Disorders Research Society (Fellow) • International Neuropsychological Symposium (Fellow) • Association for Psychological Science (APS) • Cognitive Neuroscience Society • International Neuropsychological Society • Society for Neuroscience • Society for Sleep Research • International Organization for Psychophysiology • International Brain Research Organization*

### **KEYNOTE ADDRESSES**

#### **Psychology/Neuroscience**

*The Neuroscience of Sleep, Stress, and Wellbeing.* Baylor School of Medicine. (October, 2021, presented virtually due to COVID-19,).

*Sleep and Stress Interact to Influence Emotional Memory Consolidation.* International Association for the Study of Sleep and Dreaming (IASD), Virginia Beach, VA (June, 2015).

### **Neuroscience of Leadership**

*Sleep, Memory, and Decision Making.* Indiana Sherriff's Association Meeting. Indianapolis, IN (April, 2021).

*The Neuroscience of Sleep, Stress, and Wellness.* Canadian Health and Wellness Innovations Conference, Orlando, FL (February, 2019).

*Leading with the Brain in Mind: Sleep for Productivity.* Neuroleadership Summit, Sydney, Australia (June, 2013).

*MPG – A Brain Based Model for Leadership: Moderate Stress, Positive Affect, Good Sleep.* Neuroleadership Summit, London, England (September, 2013).

*MPG – A Brain Based Model for Leadership: Moderate Stress, Positive Affect, Good Sleep.* Neuroleadership Summit, Washington DC (November, 2013).

### **SYMPOSIUM ORGANIZER AND CHAIR**

*Selective Memory Consolidation During Sleep.* Association for Psychological Science (APS), San Francisco, CA (May, 2014).

*Sleep-Based Consolidation of Hippocampal Memory.* Hippocampal Research Conference, Verona, Italy (May 2011).

*Sleep and Cognition: Findings across Domains.* Association for Psychological Science, Washington D.C (May, 2007).

### **INVITED TALKS**

*Sleep, Stress and Emotional Memory Consolidation.* Columbia University/Zuckerman Institute Neuroscience Seminars (April, 2022, presented virtually due to Covid-19).

*Neuroanatomy of Sleep and Memory.* Annual Meeting of the Sleep Research Society, Meet the Professor Series/Trainee Program. (May, 2021, presented virtually due to Covid-19).

*Stress, Sleep, and Emotional Memory Consolidation.* Presented at McGill University/Montreal Neurological Institute (May, 2020, presented virtually due to Covid-19)

*Sleep, Stress, Memory, Negativity – Clinical Implications.* Presented at the Donders Institute for Cognitive Neuroscience, Nijmegen, Netherlands (July, 2019).

*The Importance of Sleep for Leadership.* ACC Academic Leaders Network. University of Notre Dame (May, 2019).

*Stress-related Neuromodulators Interact with REM Sleep Theta Activity to Benefit Memory Consolidation.* Presented at the Advances in Sleep and Circadian Science meeting. Clearwater, FL (February, 2019).

*Sleep-Stress Interactions in the Consolidation of Emotional Memories: A New Memory Tagging Hypothesis.* Presented at the University of Arizona, in a lineup including two Nobel Prize laureates, John O'Keefe and May-Britt Moser (December, 2017).

*Sleep and the Brain. Why do we need sleep?* Presented at the National Academy of Sciences Frontiers of Science symposium in Bad Neuenahr, Germany (September, 2017).

*Sleep, Stress Hormones, and Emotional Memory Tagging. The Werner Reichardt Centre for Integrative Neuroscience (CIN).* University of Tübingen, Germany (Fellowship Address, October, 2016).

*From Synaptic to Systems Consolidation.* Federation of Latin-American and Caribbean Societies for Neuroscience. Buenos Aires, Argentina (October, 2016).

*Stress-Related Synaptic Tagging During Learning and Downstream Sleep-Based Memory Consolidation.* Departmental Colloquium, Brown University (April, 2016).

*Stress Hormones, Sleep, and Memory for Better and for Worse.* Psychology Department Colloquium, Furman University (Feb, 2016).

*Emotional Memory Consolidation.* Psychology Department Colloquium, UT Austin (Nov 2015).

*Sleep, Memory, and the Brain.* EDRT, Boston University (November, 2015).

*The Neuroscience of Leadership.* Mendoza Business School. University of Notre Dame, Notre Dame, IN (October, 2015).

*Sleep, Stress, and Memory Function.* Colloquium at Walter Reed, Washington D.C. (March, 2015).

*Sleep, Stress and Emotional Memory Consolidation.* Summer Institute in Cognitive Neuroscience. Santa Barbara, CA. (July, 2014).

*Sleep and Cognition.* Annual Meeting of the Sleep Research Society, Meet the Professor Series, Minneapolis, MN (June, 2014).

*Sleep, Stress and Memory Consolidation.* Departmental Seminar, Saint Louis University, Saint Louis, Missouri (April, 2014).

*Sleep, Stress, and Emotional Memory Consolidation.* Departmental Colloquia. Department of Psychology, University of Arizona (Feb, 2014).

*Sleep's Role in Cognitive Function.* Department of Psychology Seminar, Georgetown University (November, 2013).

*Sleep, Memory and the Teenage Brain.* Invited Lecture at the Sleep in Teens Conference, Minneapolis, MN (October, 2013).

*Sleep Well to Lead Well.* Mendoza College of Business Executive Integral Leadership Program. Notre Dame, IN (July, 2013).

*Sleep to Remember.* Learning: From Cells to Society. Cognitive Science Program, Georgetown University, Washington D.C. (March, 2013).

*Sleep and the Business Mind.* Mendoza College of Business Executive Integral Leadership Program. Notre Dame, IN (January, April, 2013).

*Leading with the Brain in Mind.* Future Leaders Conference. Chicago, IL. (September, 2012).

*The Innovative Brain.* ASTD. Denver, Colorado (May, 2012).

*Sleep and the Transformation of Memories for Emotionally Negative Events.* Winter Conference on Memory. Lübeck, Germany (December, 2011).

*The Senior Executive Brain: What can Neuroscience Teach us about Leading Well?* Neuroleadership Summit. San Francisco, CA (November, 2011).

*Sleep, Dreams, Memory: Lingering Questions.* Symposium I: Young Innovators in Psychology. Cape Cod, MA. (June, 2011).

*Sleep, Stress and Positive Affect: What Business Leaders Need to Know about the Brain.* Center for Creative Leadership, Greensborough, NC (May, 2011).

*Sleep Restructures the Emotional Memory Trace: Behavioral and Neural Evidence.* Laird Cermak Award Address, International Neuropsychological Society (INS), Boston, MA (January, 2011).

*Sleep, Memory Transformation, and Creativity.* Cognitive/Cognitive Neuroscience Brown Bag, Purdue University (December, 2010).

*The Neural Challenges of the Senior Leader.* Neuroleadership Summit. Boston, MA (November, 2010).

*Where Business Meets Neuroscience.* Humana, INC. Louisville, KY (October, 2010).

*Emotional Memory, Stress and Sleep.* Massachusetts Institute of Technology (MIT) conference on Learning and Memory in the Modern Age (January, 2010).

*Sleep's Role in Memory Consolidation.* Departmental Colloquium, Stony Brook University (May, 2009).

*Sleep and Memory Transformation.* Cognitive Brown Bag, UMASS Amherst (April, 2009).

*Sleep Selectively Enhances Emotional Components of Scenes.* International Congress on Psychology, Berlin, Germany (July, 2008).

*Emotional Memory, Sleep and Dreaming.* Association for the Study of Dreams, Montreal, Canada (July, 2008).

*Stress Damages the Mind, Body and Brain,* Humana, Inc., Louisville, KY (April, 2008).

*Sleep-based Memory Consolidation,* Worcester State College, Worcester, MA (March, 2008).

*Sleep for Memory Consolidation and Memory Transformation (Job Talks)*

Harvard/Beth Israel Deaconess (November, 2008)

Lehigh University (November, 2008)

Ohio State (November, 2008)

University of Denver (December, 2008)

University of Calgary (December, 2008)

UC Santa Cruz (December, 2008)

University of Miami (January, 2009)

University of Notre Dame (January, 2009)

Macalester College (January, 2009)

*Sleep on it! There's more to it than just the old adage,* Humana Inc., Louisville, KY (January, 2008); Knowledge Leadership Forum, Cambridge, MA (January, 2008); Ketchum, Inc., New York City (March, 2008); Intelligence Leadership Forum, Amelia Island, Florida (February, 2008).

*Sleep, Cognitive Flexibility, and Qualitative Changes in Memory.* International Neuropsychological Society, Mati, Greece (June, 2007).

*Stressing Memory.* Boston College (March, 2007).

*Stress, Cortisol, the Catecholamines, and Human Memory Function.* Harvard Medical School Neurophysiology Seminar (September, 2005).

*To Sleep Perchance to Dream: Memory, Cortisol and the Nature of Dreams.* MDRS, Chicago, IL (Oct, 2004).

*Stress and Binding in Various Forms of Episodic Memory.* University of Arizona Brain,

Behavior and Computation Seminar. (November, 2003).

### **PROFESSIONAL TALKS (past 5 years)**

*Sleep Spindles Coupled with Slow Oscillations Promote Memory Consolidation During Slow Wave Sleep.* Provost's "Moment to See, Courage to Act" talk series (May, 2021).

*Cortisol and Theta Activity During Sleep: Effects on Emotional and Neutral Memory.* Memory Disorders Research Society. Columbia University (October, 2019).

*Interactive effects of stress reactivity and REM sleep theta activity on emotional episodic memory consolidation.* Context and Episodic Memory Meeting. University of Pennsylvania (May, 2019).

*Preferential Emotional Memory Consolidation is Preserved in Middle Age.* Cognitive Neuroscience Society. Boston, MA (March, 2018).

*Sleep-Stress Interactions in Emotional Memory Formation.* Winter Conference on the Neurobiology of Memory. Park City, Utah. (January, 2017).

*Stress Hormones, REM Sleep, and Memory Consolidation.* Federation of Latin-American and Caribbean Societies for Neuroscience. Buenos Aires, Argentina (November, 2016).

*Preferential Consolidation of Emotional Components of Memory During a Nap is Preserved with Age.* Annual Meeting of the Psychonomics Society (November, 2016).

*Sleep, Stress Hormones, and Emotional Memory Tagging.* Meeting of the International Organization of Psychophysiology. Havana, Cuba (September, 2016).

*The Cognitive Neuroscience of Memory Consolidation.* International Brain Research Organization, Rio, Brazil (June, 2015).

*Memory Consolidation During Sleep.* Annual Meeting of the Association for Psychological Science. New York, New York (May, 2015).

*Memory Consolidation: Interactive Relationships Between Sleep and Stress.* Annual meeting of the Psychonomics Society. Long Beach, CA (November, 2014).

*Start School Later (Learning and Memory Perspectives).* Sleep Research Society/APSS. Minneapolis, MD (June, 2014).

*Stress, Sleep, and Emotional Memory Consolidation.* Association for Psychological Science. San Francisco, CA (May, 2014).

*Sleep, Stress and Emotional Memory Consolidation.* Cognitive Neuroscience Society. Boston, MA (April, 2014).

*Memory Consolidation During Sleep.* Trainee Day. Sleep Research Society/APSS. Baltimore,

MD (June, 2013).

*Sleep Selectively Benefits Emotional Aspects of Human Memory: Behavioral and Neural Evidence.* Society for Psychophysiological Research. New Orleans, LA (October, 2012).

*Sleep and Emotion.* Association for Psychological Science, Chicago, IL (April, 2012).

*Sleep-based Emotional Memory Formation: Sleep Stage Correlates.* Society for Neuroscience, Washington D.C. (November, 2011).

*Sleep Transforms the Emotional Memory Trace: Behavioral and Neural Evidence.* International Congress on Memory (ICOM). York, England (August, 2011).

*Emotional Memory Formation and Sleep.* Hippocampal Research Conference, Verona, Italy (May, 2011).

*Sleep's Role in the Consolidation of Emotional Episodic Memories: Evidence from EEG and fMRI.* Annual meeting of the Cognitive Neuroscience Society, San Francisco, California (April, 2011).

*Sleep Triggers Lasting Changes in the Emotional Memory Trace: Evidence from fMRI,* APSS/Sleep Research Society, San Antonio, TX (June, 2010).

*Sleep Promotes Long-Lasting Changes in Emotional Memories,* APSS/Sleep Research Society, Seattle, Washington (June, 2009).

*Slow-wave Sleep Correlates Negatively with a Declarative Memory Task,* Sleep Research Society, Baltimore, Maryland (June, 2008).

*The Impact of Sleep on Emotional Memory Trade-offs.* Sleep Research Society, Minneapolis, MN. (June, 2007).

*Sleep On It to Get the Gist: Memory Associations across the Night.* Annual meeting of the Association for Psychological Science. Washington D.C. (2007).

*Sleep increases Veridical and False Recall of Semantically Related Words.* Annual meeting of the Psychonomic Society, Houston, TX (2006).

*Sleep on it to get the Gist.* Annual meeting of the Society for Neuroscience, Atlanta, Georgia (2006).

*The Impact of Stress on Perceptual and Memorial binding: Illusory Conjunctions and False Memories.* University of Arizona Memory Group (2004).

*The Impact of Stress on False Recognition in the Deese Roediger McDermott (DRM) Paradigm.* University of Arizona Memory Group (2002).

*Memory, Distractor Tasks and the Resource Demands of Different Cognitive Tasks.* Annual meeting of the Western Psychological Association. Seattle, WA (1997).

## **SELECTION OF SERVICE TALKS AND WORKSHOPS**

*The Neuroscience of Being Your Best Self: What good sleep, moderate stress, and positive emotion can teach us about living (and leading) well.* Presented at Thrive!, University of Notre Dame, Notre Dame, IN (May, 2021).

*Sleep and Stress During a Pandemic.* Presented for How to Non-Virtually: Unplug and find balance, University of Notre Dame (March, 2021)

*Sleep, Stress, and Wellbeing.* Presented at Notre Dame's "Lunch and Learn" speaker series, University of Notre Dame (February, 2021).

*The Neuroscience of Being Your Best Self.* Presented at Arts & Letters, SAS, University of Notre Dame (Feb, 2021)

*While you were sleeping: Your Brain's Nocturnal Pursuits.* Vail Symposium, Vail, Colorado (Feb, 2020).

*The Neuroscience of Being Your Best Self: What good sleep, moderate stress, and positive emotion can teach us about living (and leading) well.* Presented at ND Lead, University of Notre Dame, Notre Dame, IN (January, 2020), compensated.

*Wellbeing in the Classroom.* Kaneb Center sponsored talk given to Notre Dame faculty, postdocs, and graduate students (September, 2019).

*Sleep on it! There's More to it than just the Old Adage.* Rotary Club, Elkhart, IN (April, 2019).

*The Neuroscience of Being your Best Self: What Sleep, Stress, and Emotion Research can Teach us about Leading (and Living) Well:* ND Lead (April, 2016, Feb, 2018, April, 2019), compensated.

*The Science of Stress and Sleep: How they Affect Memory, Concentration, and Creativity* Address to the ND student body, sponsored by McWell (Nov, 2017).

*Sleep to be Your Best Self.* Lunch and learn address to the ND staff (Feb, 2017).

*Sleep for Better Performance.* Address to the ND men's Lacrosse team (Feb, 2017).

*Sleep to Learn, Learn to Sleep.* Address to the incoming students of the Notre Dame Law School (August, 2016).

*Sleep on it!* Notre Dame Shares (ND Development Team). Notre Dame, IN (April 2016).

*Everything you Ever Wanted to Know About Sleep (But Were Too Tired to Ask!)* One Day University. Community Event. South Bend, IN (April, 2016), compensated.

*Sleep to Learn; Sleep to Lead.* Young Leaders of Notre Dame. Notre Dame, IN (Feb, 2016).

*The Neuroscience of Leading (and Living) Well.* Mendoza Business School. University of Notre Dame, Notre Dame, IN (Jan, 2016), compensated.

*The Neuroscience of Leading (and Living) Well.* Workshop given to the Volunteers of America. University of Notre Dame, Notre Dame, IN (October, 2014).

*The Neuroscience of Being Your Best Self.* Board of Trustees Spouses. University of Notre Dame. Notre Dame, IN (October, 2014).

*Sleep Well to Lead Well.* Mendoza College of Business Executive Integral Leadership Program. Notre Dame, IN (August, 2014), compensated.

*Sleep Well to Age Well.* Invited talk at the South Bend Science Café, South Bend, IN (February, 2014).

*Sleep on it! There's more to it than just the old adage.* Public talk at Memorial Hospital, South Bend, IN (December, 2012).

*Sleep on it! There's more to it than just the old adage.* 2012 Reilly Center Forum. University of Notre Dame. Notre Dame, IN (November, 2012).

*Sleep on it! There's more to it than just the old adage.* Saturday Scholars. University of Notre Dame. Notre Dame, IN (October, 2012).

*Sleep, Health, Memory.* Memorial Hospital. South Bend, IN (June, 2012).

*Sleep, Stress, and Memory: Implications for Clinical Depression.* ND Development trip; Fundraising talk given in an attempt to secure Warren Foundation funding. Tulsa, OK (July, 2011).

*Sleep on it! There's More to it than just the Old Adage.* Mendoza College of Business Staff Development Day. Notre Dame, IN (June, 2011), compensated.

*Sleep, Creativity, and the Law.* University of Notre Dame Law School, Notre Dame, IN (November, 2010).

## **RECENT CONFERENCE PRESENTATIONS (POSTERS AND TALKS)**

Park, J.E., Denis, D., Payne, J.D., Miller-Graff, L.E. Intimate partner violence and its association with subjective and objective assessments of sleep: The potential mediating role of internalizing symptoms. Presented at the annual meeting of the ISTSS.

Sanders, K. E. G., Payne, J. D. (November, 2021). Examining the impact of taking a break on memory reorganization and problem solving. Poster presented at the 62nd Annual meeting of the Psychonomic Society, New Orleans, LA.

Denis, D., DiPietro, C., & Payne, J.D. (March, 2021). The influence of sleep and retrieval practice on memory consolidation in the “War of the Ghosts” paradigm. Poster presented at the 28th annual meeting of the Cognitive Neuroscience Society.

Denis, D., Kim, S.Y., Kark, S.M., Daley, R.T., Alger, S.E., Kensinger, E.A., & Payne, J.D. (June, 2020). Slow wave sleep time and its oscillatory features show opposite associations with

emotional memory consolidation following stress. Poster presentation at the Virtual SLEEP Annual Meeting.

Kim, S.Y., Kark, A.M., Daley, R.T., Kensinger, E.A., & Payne, J.D. (April, 2020). Power naps and episodic memory. Differential benefits of stage 2 sleep and slow wave sleep. Poster presentation at the Annual (Virtual) Meeting of the Cognitive Neuroscience Society.

Denis, D., Kim, S.Y., Kark, S.M., Daley, R.T., Alger, S.E., Kensinger, E.A., & Payne, J.D. (April, 2020). Slow oscillation-spindle coupling during slow wave sleep impairs emotional memory consolidation following stress exposure. Poster presentation at the Annual (Virtual) Meeting of the Cognitive Neuroscience Society.

Ford, J.H., Kim, S.Y., Kark, S.M., Daley, R.T., Payne, J.D., & Kensinger, E.A. (April, 2020). Effects of stress-related changes in intrinsic connectivity on emotional memory retrieval. Poster presentation at the Annual (Virtual) Meeting of the Cognitive Neuroscience Society.

Martinez, A., & Payne, J.D. (October, 2019). Cortisol-Testosterone interactions on approach/avoid behavior and emotional memory. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Kim, S.Y., Kark, S.M., Daley, R.T., Kensinger, E.A., & Payne, J.D. (October, 2019). Effects of cortisol reactivity and REM theta activity on emotional memory consolidation. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Yeh N., Rose, N. S, Koen, J. D., Kim, S. Y., Kensinger, E. A., & Payne, J. D. (October, 2019). Medial prefrontal cortex plays a causal role in selectively enhancing consolidation of emotional memories: A TMS-EEG study. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Martinez, B. S., Kim, S. Y., Payne, J. D., & Bergeman, C. S. (August, 2019). A comparison of emotional memory recognition following a religion/spirituality- or mindfulness-based reappraisal intervention. Poster presentation at the International Society of Psychoneuroendocrinology Annual Meeting, Milan, Italy.

Kim, S. Y., & Payne, J. D. (June, 2019). NREM stage 2 sleep and SWS may differentially benefit episodic memory. Poster presentation at the SLEEP Annual Meeting, San Antonio, TX.

Cunningham, T. J., Bottary, R., Denis, D., Stickgold, R., & Payne, J. (June, 2019). Prospective Memory Improvement is Associated with Changes in Slow Wave Sleep, Delta/Theta, Power, and Spindle Activity. Poster presentation at the annual meeting of the Associated Professional Sleep Societies, San Antonio, TX.

Cunningham, T. J., Bottary, R. M., Kim, S. Y., Stickgold, R., & Payne, J. D. (June, 2019). Prospective memory improvement is associated with changes in slow wave sleep, delta/theta power, and spindle activity. Poster presentation at the SLEEP Annual Meeting, San Antonio, TX.

Kim, S. Y., Kark, S. M., Daley, R. T., Kensinger, E. A., & Payne, J. D. (March, 2019). Effects of cortisol reactivity and REM theta activity on emotional memory consolidation. Poster

presentation at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Kim, S. Y., Kensinger, E. A., & Payne, J. D. (February, 2019). Effects of stress and REM theta activity on emotional memory consolidation. Poster presentation at the Advances in Sleep and Circadian Science Meeting, Clearwater Beach, FL.

Yeh N., Kim, S. Y., Payne, J. D., & Rose, N. S. (November, 2018). Medial prefrontal cortex has a causal role in selectively enhanced consolidation of emotional memories: A TMS-EEG study. Poster presentation at the Society for Neuroscience Annual Meeting, San Diego, CA.

Kim, S. Y., & Payne, J. D. (November, 2017). The role of NREM stage 2 spindles in an afternoon nap for lab-based and real-world measures of episodic memory. Poster presentation at the Society for Neuroscience Annual Meeting, Washington, DC.

Cunningham, T., Pardilla-Delgado, E., & Payne, J. (June, 2017). Prospective Memory Performance Negatively Correlates with Slow-Wave Sleep Despite an Overall Enhancement Across Sleep. Poster presentation at the Associated Professional Sleep Society Conference, Boston, MA.

Phillips, A., Cunningham, T., & Payne, J. (April, 2017). Targeted Memory Reactivation: Odor as a Reactivation Cue During Sleep. Poster presentation at the Midwestern Psychological Association Annual Meeting, Chicago, IL.

Cunningham, T., Bolinger, E., Born, J., & Payne, J. (March, 2017). The Association of Skin Conductance Level with Emotional Memory Performance Over Time. Poster presentation at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Pardilla-Delgado E., Forcato C., & Payne J.D. (March, 2017). Memory strengthening via multiple labilization-reconsolidation cycles: a replication study. Poster presentation at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Alger, S.E., & Payne, J.D. (November, 2016). Preferential consolidation of emotional components of memory during a nap is preserved with age. Selected as an Oral Presentation at the annual Psychonomic Society meeting, Boston, MA.

Alger, S.E., & Payne, J.D. (November, 2016). Selective consolidation of emotionally salient information during a nap is preserved across age. Selected as an Oral Presentation at the annual Psychonomic Society meeting, Boston, MA.

Alger, S.E., & Payne, J.D. (June, 2016). Selective consolidation of emotionally salient information during a nap is preserved with age. Poster presentation at the APSS annual Sleep meeting, Denver, CO.

Pardilla-Delgado, E., & Payne, J.D. (June, 2016). Dream Reporting May Shift Memory Processing to A Gist-Like State. Poster presentation at the APSS annual Sleep meeting, Denver, CO.

Cunningham, T., Bolinger, E., Born., J., & Payne, J.D. (June, 2016). Proximity to sleep alters the affective processing of emotional and neutral stimuli. Poster presentation at the APSS annual Sleep meeting, Denver, CO.

Alger, S.E., & Payne, J.D. (May, 2016). Preservation of the preferential consolidation of emotionally salient information during a nap with age. Poster presentation at the Association for Psychological Science Annual Meeting, Chicago, IL.

Bolinger, E., Cunningham, T., Born., J., & Payne, J.D. (May, 2016). Proximity to sleep alters the affective processing of emotional and neutral stimuli. Poster presentation at the Association for Psychological Science Annual Meeting, Chicago, IL.

Bowman, M., Cunningham, T., Bolinger, E., Born., J., & Payne, J.D. (May, 2016). Sex Moderates the Effect of REM Sleep on Emotional Memory Consolidation. Poster presentation at the Association for Psychological Science Annual Meeting, Chicago, IL.

Cunningham, T., Bowman, M., Ellickson-Larew, S., & Payne, J.D. (May, 2016). Anxiety and Poor Mood Predict Poor Prospective Memory Performance. Poster presentation at the Association for Psychological Science Annual Meeting, Chicago, IL.

Pardilla-Delgado E., Asp, E.W., Cunningham, T.J., Warner, K.A., & Payne J.D. (April, 2016). The effects of a stress-related cortisol increase on higher cognitive functions: false memory formation and anchoring and adjustment. Poster presentation at the Cognitive Neuroscience Society Annual Meeting, New York City, NY.

Cunningham, T., Mattingly, S., & Payne, J. (April, 2016). Hypothalamic-Pituitary-Adrenal Axis Activation is Necessary for the Preferential Consolidation of Emotional Memory Traces. Poster presentation at the Cognitive Neuroscience Society Annual Meeting, New York City, NY.

Alger, S.E., & Payne, J.D. (October, 2015). The differential effects of emotional salience on direct associative and relational memory during a nap. Selected as an Oral Presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Pardilla-Delgado E., Asp, E.W., Cunningham, T.J., Warner, K.A., & Payne J.D. (October, 2015). The effects of acute psychosocial stress on higher cognitive functions: false memory formation and anchoring and adjustment. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Cunningham, T. & Payne, J. (October, 2015). Sleep Benefits Memory to Complete Goal-Relevant Behavior. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago, IL.

Mattingly, S. M., & Payne, J.D. (October, 2015). The effects of semantic relatedness on long term survival memory processing. Poster presentation at the Society for Neuroscience Annual Meeting, Chicago IL.

Cunningham, T. & Payne, J. (September-October, 2015). Preliminary Evidence for the Hyperactivity of the Sympathetic Network in Depression and Anxiety. Poster presentation at the Annual Meeting of the Society for Psychophysiological Research (SPR), Seattle, WA.

Cunningham, T. & Payne, J. (June, 2015). The Relationship between REM Sleep and the Cortisol Awakening Response (CAR) Following Stress Exposure. Poster presentation at the annual Associated Professional Sleep Society Conference, Seattle, WA.

Alger, S.E., Huguet, M., & Payne, J.D. (June, 2015). The differential effects of emotional salience on direct associative and relational memory during a nap. Poster presentation at the annual Associated Professional Sleep Society Conference, Seattle, WA.

Cunningham, T. & Payne, J. (2015). Stress reactivity enhances memory for emotional content at the cost of neutral information. Poster presentation at the University of Notre Dame Graduate Student Symposium, Notre Dame, IN.

Cole, M., Cunningham, T., & Payne, J. (May, 2015). The Effect of Sleep on Skin Conductance Reactivity and Emotional Memory. Poster presentation at the Midwestern Psychological Association Annual Meeting, Chicago, IL.

Cunningham, T. & Payne, J. (March, 2015). Stress reactivity enhances memory for emotional content at the cost of neutral information. Poster presentation at the Cognitive Neuroscience Annual Meeting, San Francisco, CA.

Cunningham, T., Bolinger, E., Lathrop, Q., Born, J., & Payne, J. (August, 2014). Disentangling Sleep, Memory, and Emotion. Poster presentation at the Memory and Consciousness-Plasticity Brain Rhythms and Sleep Summer School, Tübingen, Germany.

Alger, S.E., Chambers, A., & Payne, J.D. (June, 2014). A nap rich in slow wave sleep selectively preserves emotional scene components. Poster presentation at the annual meeting of the Sleep Research Society, Minneapolis, MN.

Mattingly, S. M., Payne, J.D., Kensinger, E., Alger, S., Cunningham, T., & Wirth, M. (June, 2014). Stress Effects on Consolidation of Emotional Memory Tradeoffs at 24 and 48 Hours. Poster presentation at the annual meeting of the Sleep Research Society, Minneapolis, MN.

Cunningham, T., Chambers, A., & Payne, J. (June, 2014). The effect of expectation on the selective processing of negatively arousing information across periods of wake and sleep. Poster presentation at the annual Associated Professional Sleep Society Conference, Minneapolis, MN.

Alger, S.E., Chambers, A., & Payne, J.D. (April, 2014). A nap rich in slow wave sleep selectively preserves emotional scene components. Poster presentation at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.

Chambers, A., Cunningham, T., and Payne, J. (April, 2014). The effect of future relevance on the emotional memory tradeoff after sleep and wake. Poster presentation at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.

Cunningham, T., Wirth, M., Pardilla-Delgado, E., Blomeke, K., Rawding, J., and Payne, J. (April, 2014). Alcohol's effect on the Cortisol Awakening Response. Poster presentation at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.

Pardilla-Delgado E., & Payne J.D. (April, 2014) The effect of post-encoding stress on performance in the DRM false memory paradigm. Poster presentation at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.

## **KEY LABORATORY MEMBERS**

### **Postdoctoral Fellows (Past)**

Sara Alger, Ph.D. (Research Scientist and Sleep Laboratory Director, Walter Reed Army Institute of Research)

### **Ph.D. Students (Past)**

Alexis Chambers (Assistant Professor of Psychology at North Central College)

Tony Cunningham (Postdoctoral Research Fellow at Harvard University, Beth Israel Deaconess Medical Center)

Enma Pardillo-Delgado (Postdoctoral Research Fellow at Harvard University, Massachusetts General Hospital)

Stephen Mattingly (Postdoctoral Research Fellow with the IARPA MOSAIC project at Notre Dame, Computer Science)

### **Postdoctoral Fellows (Current)**

Daniel Denis, Ph.D. (joined the lab from Harvard University)

Kristin Grunewald, Ph.D. (joined the lab from Northwestern University)

### **Ph.D. Students (Current)**

Sara Kim

Tony Martinez

Carissa DiPietro

Chaz Rich

### **Undergraduate Student Lab Members (Current)**

Adriana Perez Negron

Angelica Hocter

Annie Birmingham

Ariana Gomez

Dain Kim

Devin Diggs

Edith James

Emilie Reynolds

Hannah Kenneally

Jacquelyn Gesbocker

Jahlecia Gregory

James Warren

Katie Ramm

Mario Tcheukado

Maura Hackett

Ndicke Sow  
Patrizia Manzano  
Sean Connolly  
Taylor Buck  
Caroline Song  
Kendal Marston

## **MEDIA COVERAGE EXAMPLES**

*Is Lucid dreaming real? (May, 2020)*

**Gizmodo**

<https://gizmodo.com/is-lucid-dreaming-real-1843197945>

*What do your bizarre pandemic dreams mean? Notre Dame researcher weighs in (May, 2020)*

**WSBT**

<https://wsbt.com/news/local/what-do-your-bizarre-pandemic-dreams-mean-notre-dame-researcher-weighs-in>

*Why Covid-19 quarantine dreams are taking over the internet (April, 2020)*

**Wired**

<https://www.wired.com/story/coronavirus-covid-19-dreams/>

*16 best tips for how to sleep well all night*

**Prevention**

<https://www.prevention.com/health/sleep-energy/a30981827/how-to-sleep/>

*How to keep your brain healthy and happy (May, 2019)*

**Martha Stewart Magazine**

<https://www.marthastewart.com/1536797/healthy-habits-brain>

*A new theory linking sleep and creativity (May, 2018)*

**The Atlantic**

<https://www.theatlantic.com/science/archive/2018/05/sleep-creativity-theory/560399/>

*Can You Be Blissfully Unaware of Your Own Stress? (September, 2018)*

**The Cut**

<https://www.thecut.com/2018/09/can-you-be-blissfully-unaware-of-your-own-stress.html>

*How to wake up to your creativity (April, 2017)*

**Time Magazine**

<http://time.com/4737596/sleep-brain-creativity/>

*These 9 techniques will help you stop forgetting things all the time (September, 2017)*

**Women's Health**

<https://www.womenshealthmag.com/health/tricks-to-remember-anything>

*Chances are you're stressed about this at least once a week. (June, 2017)*

**Huffington Post**

[http://www.huffingtonpost.com/entry/chances-are-youve-stressed-about-this-at-least-once-in-the-last-week\\_us\\_5908e548e4b0bb2d08729f31?45hd](http://www.huffingtonpost.com/entry/chances-are-youve-stressed-about-this-at-least-once-in-the-last-week_us_5908e548e4b0bb2d08729f31?45hd)

*A new study says sleep trackers might be making you sleep poorly. Here's what that really means. (March, 2017)*

**Men's Fitness**

<http://www.mensfitness.com/life/gearandtech/new-study-says-sleep-trackers-might-be-making-you-sleep-poorly-heres-what-really>

*Sleep on it. The brain never takes a night off (November, 2015)*

**Huffington Post**

<http://www.huffingtonpost.com/jessica-payne-phd/>

*Why missing a night of sleep can damage your IQ (April, 2015)*

**CNN**

<http://www.cnn.com/2015/04/01/business/sleep-and-leadership/>

*Your Brain on Sleep (November, 2015)*

**ND.EDU**

<http://www.nd.edu/features/your-brain-on-sleep/>

*Sleep Deprivation is Killing Business and Creativity (November, 2015)*

**The HR Director Magazine**

<https://www.thehrdirector.com/business-news/health-and-wellbeing/sleep-deprivation-killing-business-and-creativity/>

*An app, a course, a nightly routine: Somni prioritizes sleep (June, 2015)*

**USA TODAY**

<http://college.usatoday.com/2015/06/21/sleep-app-somni/>

*How sleep can make you a better leader (April, 2015)*

**CNN**

<http://edition.cnn.com/2015/04/01/business/sleep-and-leadership/index.html>

*Class time or sleep time for students? (May, 2015)*

**South Bend Tribune**

[http://www.southbendtribune.com/news/local/class-time-or-sleep-time-for-students/article\\_3c3980c5-46c5-578b-af8e-99bf315f613b.html](http://www.southbendtribune.com/news/local/class-time-or-sleep-time-for-students/article_3c3980c5-46c5-578b-af8e-99bf315f613b.html)

*To Keep Teenagers Alert, Schools Let Them Sleep In (March, 2014)*

**New York Times**

[http://well.blogs.nytimes.com/2014/03/13/to-keep-teenagers-alert-schools-let-them-sleep-in/?\\_r=0](http://well.blogs.nytimes.com/2014/03/13/to-keep-teenagers-alert-schools-let-them-sleep-in/?_r=0)

*Lack of sleep derails us all (December, 2013)*

**Huffington Post**

[http://www.huffingtonpost.com/david-rock/lack-of-care-about-sleep-\\_b\\_4441761.html](http://www.huffingtonpost.com/david-rock/lack-of-care-about-sleep-_b_4441761.html)

*Be more creative in 4 simple steps (September, 2013)*

**Good Housekeeping**

<http://www.goodhousekeeping.com/home/crafts/be-more-creative>

*Ability to learn is affected by the timing of sleep (April, 2012)*

**Scientific American**

<http://www.scientificamerican.com/podcast/episode.cfm?id=ability-to-learn-is-affected-by-the-12-03-24>

*Sleep on it! How dozing off turns on your brain power and makes memories last (May, 2012)*

**YouBeauty (Dr. Oz's website)**

<http://www.youbeauty.com/sleep/sleep-for-memory?page=2>

*Wake-up call for teachers: Nodding off in class could actually be the best way to learn (March, 2012)*

**Daily Mail UK**

<http://www.dailymail.co.uk/sciencetech/article-2120420/Sleeping-shortly-learning-new-best-way-remember-it.html>

*Learning best when you rest: Sleeping after learning new info most effective (April, 2012)*

**Science Daily**

<http://www.sciencedaily.com/releases/2012/03/120323205504.htm>

*Night owls more likely to suffer from nightmares, survey suggests (September, 2011)*

**Scientific American**

<http://www.scientificamerican.com/article.cfm?id=night-owls-more-likely-to-suffer-from-nightmares-survey-suggests>

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