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POSITIONS AND HONORS

Current

James L. McCaugh Chair in Neurobiology of Learning and Memory
Professor, Departments of Neurobiology and Behavior & Cognitive Sciences (joint), UC Irvine
Director, Campus Center for Neuro-Imaging (CCNI)
Director, Facility for Imaging and Brain Research (FIBRE)
Biomarker Core Leader, UCI Alzheimer's Disease Research Center (ADRC)
Fellow, Center for the Neurobiology of Learning and Memory (CNLM)

Previous

2010-2014: Director, Center for the Neurobiology of Learning and Memory (CNLM)
2008-2011: Associate Professor, Department of Neurobiology and Behavior, UC Irvine
2001-2007: Assistant Professor, Department of Psychological and Brain Sciences, Johns Hopkins University.
Joint appointment in Department of Neurosciences, Johns Hopkins University

Education

1988-1992: A.B., Harvard University
1992-1997: Ph.D., Cognitive Psychology, Carnegie Mellon University (Advisor: James McClelland)
1997-2001: Postdoctoral Fellow, University of California, San Diego (Advisor: Larry Squire)

Honors and Awards

Department of Psychology Faculty Prize, Harvard University, 1992
Magna Cum Laude with Highest Honors: Harvard University, 1992
McDonnell-Pew Center for Cognitive Neuroscience Postdoctoral Fellow, UCSD, 1997
Certificate of Distinction, National Judicial College, 2009
Certificate of Appreciation, National Associate of Administrative Law Judiciary, 2010
Faculty Member: Faculty of 1000 Cognitive Neuroscience division, 2010-
Member of the Dana Alliance for Brain Initiatives, 2011-
Fellow of the American Association for the Advancement of Science (AAAS), 2018 -
Fellow for the Association for Psychological Science (APS), 2018 -

Memberships

American Association for the Advancement of Science
Cognitive Neuroscience Society
Human Brain Mapping
Memory Disorders Research Society (elected 2003)
Psychonomics Society
Society for Neuroscience
Association for Psychological Science
Faculty of 1000 Cognitive Neuroscience

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PROFESSIONAL ACTIVITIES

Grant Reviews

Ad-hoc grant reviews: National Science Foundation (Cognitive Neuroscience, 2002)
Ad-hoc grant review panels: National Institute of Health (Cognition & Perception, 2004), National Science Foundation (Cognitive Neuroscience, 2004).

Reviewer for National Institutes of Health Special Emphasis Panel, 2010.
Reviewer for National Institutes of Health, ad-hoc, (April, Aug, Oct) 2011
NIH Review Panel Member, Cognition and Perception, October 2012 - February 2018
Reviewer for Special Emphasis Panel, National Institutes of Aging, July 11, 2018
Reviewer for National Institutes of Health Fellowship SEPT F01B Panel, June 2019
Reviewer for Learning and Memory Panel, National Institute of Health, February, 2020
Chair, Member Conflict Special Emphasis Panel (Cognition and Perception), July 2020

Manuscript Reviews

Manuscript reviews for: Brain & Cognition, Cerebral Cortex, Cortex, Hippocampus, Human Brain Mapping, The Journal of Cognitive Neuroscience, The Journal of Neuroscience, Learning and Memory, Nature, NeuroImage, Neuron, Neuropsychologia, Neuropsychology, PNAS, Psychological Science, Psychonomic Bulletin and Review, Science
Associate Editor for Encyclopedia of Neuroscience. LR Squire (Ed) (2010) Elsevier.
Consulting Editor for Neuropsychology (2013 - current)

Conference Organizer

Chair: fMRI Users Group, University of California San Diego, 2000-2001
Co-organizer for the Center for the Neurobiology of Learning and Memory Spring Meeting, UCI, 2009-14
Chair & organizer for special session for the 35th Annual Winter Conference on the Neurobiology of Learning and Memory, Park City, UT, January 6-9, 2011
Member of Executive Committee for the Winter Conference on Learning & Memory, May 2013-current
Chair, Biological Sciences and School of Medicine Joint Research Faculty Retreat, 2014-2020

Professional Service to Societies and Outside Institutions

Visiting Researcher (Gastwissenschaftler), Max Planck Institute, September 2011
Member, McDonnell Adult Neurogenesis Coalition, 2012 - 2017
Member, Hippocampal Subfield Segmentation Steering Committee, May 2013 - current
Expert Witness, Mueller Trial, Denver, CO, October 8, 2013
Member, NASA Workshop: Optimization of Translational Animal Models to Assess Human Spaceflight Performance for Studying the In-Flight Effects of Space Radiation: The Journey to Mars and Back. 2017-current

GRANTS

Completed

National Institute of Health, 1999-2001 (PI: CEL Stark)
NRSA Individual Postdoctoral Grant, MH 12278
The Relationship Between Recognition Memory and Priming
National Science Foundation, 2003-2006 (PI: CEL Stark)
Cognitive Neuroscience Initiative, BCS-0236431
fMRI of the Medial Temporal Lobe Memory System
National Institute of Health, 2003-2005 (Co-Investigator; PI: Barry Gordon)
National Institute of Mental Health R-21, MH 068522
Generalization of Semantic Learning in Amnesia
National Institute of Health, 2005-2006 (PI: CEL Stark)
National Institute of Aging, P50 AG05146 (ADRC sub-award to PI: CEL Stark)
High Resolution fMRI and Landmark Detection in the MTL of Patients with MCI
National Science Foundation, 2006-2010 (PI: CEL Stark)
Cognitive Neuroscience Initiative, BCS-0544959
Pattern Separation, Pattern Completion, and Encoding Dynamics in the MTL

National Institute of Health, 2008-2010 (PI: CEL Stark)
National Institute of Aging, R03 AG032015
Functional Imaging of Hippocampal Subfields in Healthy Aging

National Institute of Health, 2008-2009 (PI: M. Albert)
National Institute of Aging 5P50 AG016573-09 (ADRC sub-award to PI: Stark)
Functional Imaging of Hippocampal Subfields in Mild Cognitive Impairment

National Institute of Health, 2009-2011 (PI: M Gallagher)
National Institute of Aging 1RC2 AG036419-01 (Co-Investigator)
Bridging Cognitive Aging in Rodents to Man Using fMRI in Amnesic MCI

National Institute of Health, 2012-2014 (Consultant, PI: T. Van Erp)
National Institute of Mental Health R21 MH097196
High-Resolution Functional Imaging of Hippocampal Subfields in Schizophrenia

National Institutes of Health, 2010-2015 (PI: F LaFerla)
National Institute of Aging P50 AG16573 (ADRC project to PI: CEL Stark)
Understanding Changes in Structure, Connectivity, and Function of the Hippocampus in Age-Related Memory Loss and MCI

UCI Conte Center on Brain Programming in Adolescent Vulnerabilities Pilot Projects Grant, 2014-2015
(PI: CEL Stark)
Effects of Early Life Stress on Hippocampal Functions and Emotional Modulation in Humans

UCI Biological Sciences Faculty Research & Travel Award, 2015 (PI: CEL Stark)
Neuroimaging of video-game environment enrichment

National Institutes of Health, 2010-2016 (Multi-PI with W. Suzuki)
National Institute of Mental Health R01 MH085828
Neuropsychological and fMRI Studies of Associative Learning in the MTL and Striatum

James S. McDonnell Foundation Grant, 2013-2017 (PI: F. Gage)
Bridging the gap between model organisms and human cognition

National Science Foundation, 2014-2017 (Co-Investigator, PI: N Fortin)
Cognitive Neuroscience Initiative, BCS-1439267
Neural Basis of the Memory for Sequences of Events: A Synergistic Approach in Rats and Humans

Dana Foundation Clinical Research Grant, 2015-2018 (PI: CEL Stark)
Videogame-based environmental enrichment training for memory improvement in older adults

Allergan Pharmaceuticals, 2017-2018 (PI: CEL Stark)
ITT-00972
Measuring the effects of BOTOX on the brainstem using MR Spectroscopy (MRS) and fMRI

National Institutes of Health, 2014-2019 (PI: I Grant)
National Institute of Drug Abuse P50 DA026306
Translational Methamphetamine AIDS Research Center (TMARC)

National Institute of Health, 2016-2019 (NCE) (PI: CEL Stark)
National Institute of Aging 1 R21 AG053040-01
1H and 31P MR Spectroscopy of Hippocampal Hyperactivity in Aging and MCI

National Institute of Health, 2016-2019 (NCE) (PI: CEL Stark)
National Institute of Aging 1 R21 AG054092-01
What is the relationship between BOLD fMRI and functional MRI in aging and MCI?

National Institute of Health, 2017-2019 (PI: CEL Stark)
National Institute of Aging 1 R21 AG056145-01
Videogame-based environmental enrichment training for alterations in hippocampal functioning in middle-aged adults

Active

National Institute of Health, 2009-2021 (PI: CEL Stark)
National Institute of Aging 1R01 AG034613-02
High-Resolution Structural and Functional Brain Imaging of the Medial Temporal Lobe

National Aeronautics and Space Administration, 2019-2021 (Co-PIs with Drs. Desai and Limoli)
NASA / KBRWyle 401498
Neurobehavioral Biomarkers Performance/Pathway for Central Nervous System (CNS) Radiation/Performance Data Mining

National Institute of Health, 2020-2025 (PI: CEL Stark)
National Institute of Aging 1R01 AG066683-01
Development of the mnemonic similarity task as a tool to address age and dementia-related memory decline

National Institute of Health, 2020-2025 (Biomarker Core leader; PI: Laferla)
National Institute of Aging, P30; AG066519-01
The Alzheimer's Disease Research Center at The University of California, Irvine

National Institute of Health, 2017-2022 (Co-investigator; PI: Head)
National Institute of Aging, R01 AG056998
Preclinical Evaluation of Tacrolimus in a Canine Model of Alzheimer's Disease

National Science Foundation, 2020-2023 (Co-PIs with Drs. Chrastil, Hagerty, and Krichmar)
Integrative Strategies for Understanding Neural and Cognitive Systems (NCS), 2024633
Advantages of varying navigational abilities in humans and robots

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Reber PJ, Stark CEL, Squire LR (1998). Cortical areas supporting category learning identified using functional MRI. *Proceedings of the National Academy of Sciences of the USA*, 95, 747-750. PMID: PMC18492.
2. Reber PJ, Stark CEL, Squire LR (1998). Contrasting cortical activity associated with category memory and recognition memory. *Learning and Memory*, 5, 420-428. PMID: PMC311251.
3. Stark CEL & McClelland JL (2000). Repetition priming of words, pseudowords, and nonwords. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26(4), 945-972. PMC Journal - In Process.
4. Stark CEL & Squire LR (2000). Recognition memory and familiarity judgments in severe amnesia: No evidence for a contribution of repetition priming. *Behavioral Neuroscience*, 114, 459-467. PMC Journal - In Process.
5. Stark CEL & Squire LR (2000). fMRI activity in the medial temporal lobe during recognition memory as a function of study-test interval. *Hippocampus*, 10, 329-337. PMC Journal - In Process.
6. Stark CEL & Squire LR (2000). Functional magnetic resonance imaging (fMRI) activity in the hippocampal region during recognition memory. *The Journal of Neuroscience*, 20(20), 7776-7781. PMC Journal - In Process.
7. Stark CEL & Squire LR (2000). Intact visual perceptual discrimination in humans in the absence of perirhinal cortex. *Learning and Memory*, 7(5), 273-278. PMID: PMC311337.
8. Manns J, Stark CEL, Squire LR (2000). The visual paired-comparison task as a measure of declarative memory. *Proceedings of the National Academy of Sciences*, 97(22), 12375-12379. PMID: PMC17349.
9. Stark CEL & Squire LR (2001). When zero is not zero: The problem of ambiguous baseline conditions in fMRI. *Proceedings of the National Academy of Sciences*. 98(22), 12760-12766. PMID: PMC60127.
10. Stark CEL & Squire LR (2001). Simple and associative recognition memory in the hippocampal region. *Learning and Memory*, 8, 190-197. PMID: PMC311379.
11. Stark CEL, Bayley PJ & Squire LR (2002). Recognition memory for single items and for associations is similarly impaired following damage to the hippocampal region. *Learning and Memory*, 9, 238-242. PMID: PMC187132.
12. Stark CEL & Squire LR (2003). Hippocampal damage equally impairs memory for single items and memory for conjunctions. *Hippocampus*, 13, 281-292. PMID: PMC2754398.
13. Stark CEL & Okado Y (2003). Making memories without trying: Medial temporal lobe activity associated with incidental memory formation during recognition. *The Journal of Neuroscience*, 23, 6748-6753. PMC Journal - In Process.
14. Okado Y & Stark CEL (2003). Neural processing associated with true and false memory retrieval. *Cognitive, Affective, and Behavioral Neuroscience*, 3, 323-334. PMC Journal - In Process.
15. Squire LR, Stark CEL, Clark RE (2004). The medial temporal lobe. *Annual Review of Neuroscience*, 27, 279-306. PMC Journal - In Process.
16. Kirwan CB & Stark CEL (2004). Medial temporal lobe activation during encoding and retrieval of novel face-name pairs. *Hippocampus*, 14, 910-930. PMID: PMC2704554.

17. Levy DA, Stark CEL, Squire LR (2004). Intact conceptual priming in the absence of declarative memory. *Psychological Science*, 15, 680-686. PMID: PMC2757640.
18. Stark CEL, Stark S, Gordon B (2005). New semantic learning and generalization in an amnesic patient. *Neuropsychology*, 19, 139-151. PMC Journal - In Process.
19. Okado Y & Stark CEL (2005). Neural activity during encoding predicts false memories created by misinformation, *Learning and Memory*, 12, 3-11. PMID: PMC548489.
20. Miller MI, Beg MF, Ceritoglu C, Stark CEL (2005). Increasing the power of functional maps of the medial temporal lobe using large deformation metric mapping. *Proceedings of the National Academy of Sciences*, 102, 9685-9690. PMID: PMC1172268.
21. Law JR, Flanery MA, Wirth S, Yanike M, Smith AC, Frank LM, Suzuki WA, Brown EN, and Stark,CEL (2005). fMRI activity during the gradual acquisition and expression of paired-associate memory. *The Journal of Neuroscience*, 25, 5720-5729. PMC Journal - In Process.
22. Gold JJ, Smith CN, Bayley PJ, Shrager Y, Brewer JB, Stark CEL, Hopkins RO, Squire LR. (2006). Item memory, source memory, and the medial temporal lobe: Concordant findings from fMRI and memory-impaired patients. *Proceedings of the National Academy of Sciences*, 103, 9351-9356. PMID: PMC1482613.
23. Kirwan CB, Jones, C, Miller MI, Stark CEL (2007). High-resolution fMRI investigation of the medial temporal lobe. *Human Brain Mapping*, 28(1), 959-966. PMID: PMC2853185.
24. Kirwan CB & Stark CEL (2007). Overcoming interference: An fMRI investigation of pattern separation in the medial temporal lobe, *Learning and Memory*, 14, 625-633. PMID: PMC1994079.
25. Stark SM, Gordon B, Stark CEL (2008). Does priming hinder subsequent recognition performance?, *Memory*, 16(2), 157-173. PMC Journal - In Process.
26. Stark S, Gordon B, Stark CEL (2008). A case study of amnesia: Exploring a paradigm for new semantic learning and generalization, *Brain Injury*, 22(3), 283-292. PMC Journal - In Process.
27. Bakker A, Kirwan CB, Miller MI, Stark CEL (2008). Pattern separation in the human hippocampal CA3 and dentate gyrus. *Science*, 319(5870), 1640-1642. PMID: PMC2829853.
28. Yassa MA & Stark CEL (2008). Multiple signals of recognition memory in the medial temporal lobe. *Hippocampus*,18(9), 945-954.
29. Yassa MA & Stark CEL (2009). A quantitative evaluation of cross-participant registration techniques for MRI studies of the medial temporal lobe. *NeuroImage*, 44(2), 319-327.
30. Gallagher M, Bakker A, Yassa MA, Stark CEL (2010). Bridging neurocognitive aging and disease modification: Targeting functional mechanisms of memory impairment. *Current Alzheimer's Research*, 7, 197-199. PMID: PMC3008592.
31. Yassa MA, Lacy JW, Stark SM, Albert MS, Gallagher M, & Stark CEL (2010) Pattern separation deficits associated with increased hippocampal CA3 and dentate gyrus activity in nondemented older adults. *Hippocampus*. E-pub ahead of print: 2010 DOI 10.1002/hipo.20808. vol. 21, 968-979 (2011). PMID: PMC3010452.
32. Yassa MA, Stark SM, Bakker A, Albert MS, Gallagher M, Stark, CEL (2010) High-resolution functional MRI of hippocampal CA3 and dentate gyrus in patients with amnesic mild cognitive impairment. *Neuroimage*, 51, 1242-1252. PMID: PMC2909476.
33. Stark SM, Yassa MA, Stark, CEL (2010) Individual differences in spatial pattern separation performance associated with healthy aging in humans. *Learning and Memory*, 17(6), 284-288. PMID: PMC2884287.
34. Yassa MA, Muftuler LT, Stark CEL (2010) Ultrahigh-resolution microstructural diffusion tensor imaging (msDTI) reveals perforant path degradation in aged humans in vivo. *Proceedings of the National Academy of Sciences*, 107(28), 12687-12691. PMID: PMC2906542.
35. Mattfeld AM & Stark CEL (2010) Striatal and medial temporal lobe functional interactions during visuomotor associative learning. *Cerebral Cortex*, 21(3): 647-58. PMID: PMC3297014.
36. Stark CEL, Okado Y, Loftus, EF (2010) Imaging the reconstruction of true and false memories using sensory reactivation and the misinformation paradigm. *Learning and Memory*, 17: 485-488.
37. Lacy JW, Yassa MA, Stark SM, Stark CEL (2011) Distinct pattern separation related transfer functions in human CA1 and CA3/DG revealed using high-resolution fMRI and mnemonic similarity. *Learning and Memory*, 18: 15-18. PMID: PMC3023966.

38. Yassa MA, Mattfeld AM, Stark SM, Stark CEL (2011). Age-related memory deficits linked to circuit-specific disruptions in the hippocampus. *Proceedings of the National Academy of Sciences*, 108(21), 8873-8878. PMID: PMC3102362.
39. Yassa MA & Stark CEL (2011). Pattern separation in the hippocampus. *Trends in Neurosciences*, 34(10): 515-525. PMID: PMC318227.
40. Mattfeld AM, Gluck MA, Stark CEL (2011). Functional specialization within the striatum along both the dorsal/ventral and anterior/posterior axes during associative learning via reward and punishment. *Learning and Memory*, 18:703-711. PMID: PMC3207255.
41. Hargraeves EL, Mattfeld AM, Stark CEL, Suzuki WA (2012). Conserved fMRI and LFP signals during new associative learning in the human and macaque monkey medial temporal lobe. *Neuron*, 74(4): 743-752. PMID: PMC3969034.
42. Bakker A, Krauss G, Albert MA, Speck CL, Jones LR, Stark CEL, Yassa MA, Bassett SS, Shelton AL, Gallagher M (2012). Levetiracetam treatment attenuates excess hippocampal activity with cognitive benefit in patients with amnesic mild cognitive impairment. *Neuron*, 74(3): 476-474. PMID: PMC3351697.
43. Segal SK, Stark SM, Kattan D, Stark CEL, Yassa MA (2012). Norepinephrine-mediated emotional arousal facilitates subsequent pattern separation. *Neurobiology of Learning and Memory*, 97(4): 465-469. PMID: PMC3517207.
44. Yassa MA, Hazlett RL, Stark CEL, Hoehn-Saric R (2012). Functional MRI of the amygdala and bed nucleus of the stria terminalis during prolonged stress in generalized anxiety disorder. *Journal of Psychiatric Research*, 46(8):1045-52. PMID: PMC3893050.
45. Stark CEL (2012) It is time to fill gaps left by simple dissociations. *Cognitive Neuroscience*, 3: 215-216.
46. Lacy JW & Stark CEL (2012). Intrinsic functional connectivity of the medial temporal lobe suggest a distinction between adjacent MTL cortices and hippocampus. *Hippocampus*, 22: 2290-2302. PMID: PMC3764462.
47. LePort AKR., Mattfeld AT, Dickinson-Anson H, Fallon JH, Stark CEL, Kruggel FR, Cahill L, McGaugh JL (2012). A behavioral and neuroanatomical investigation of Highly Superior Autobiographical Memory (HSAM). *Neurobiology of Learning and Memory*, 98(1), 78-92. PMID: PMC3764458.
48. Kirwan CB, Hartshorn A, Stark SM, Goodrich-Hunsaker NJ, Hopkins RO, Stark CEL (2012). Pattern separation deficits following damage to the hippocampus. *Neuropsychologia*, 50(10), 2408-2414. PMID: PMC3411917.
49. Stark SM, Yassa MA, Lacy JW, Stark CEL (2013). A task to assess behavioral pattern separation (BPS) in humans: Data from healthy aging and mild cognitive impairment. *Neuropsychologia*, 51(12): 2442-2449. PMID: PMC3675184.
50. Lacy JW & Stark CEL (2013). The neuroscience of memory: implications for the courtroom. *Nature Reviews Neuroscience*, 14: 1-10. PMID: PMC4183265.
51. Azab M, Stark SM, & Stark CEL (2013). Contributions of human hippocampal subfields to spatial and temporal pattern separation. *Hippocampus*, 24(3):293-302. PMID: PMC3933274.
52. Patihis L, Frenda SJ, LePort AKR, Peterson N, Nichols RM, Stark CEL, McGaugh JL, & Loftus EF (2013). False memories in Highly Superior Autobiographical Memory individuals. *Proceedings of the National Academy of Sciences*, 110(52): 20947-52. PMID: PMC3876244.
53. Huffman DJ, & Stark CEL (2014). Multivariate pattern analysis of the human medial temporal lobe revealed representationally categorical cortex and representationally agnostic hippocampus. *Hippocampus*, 42(11): 1394-403. PMID: PMC4197092.
54. Bennett IJ, Huffman DJ, Stark CEL (2014). Limbic tract integrity contributes to pattern separation performance across the lifespan. *Cerebral Cortex*, DOI: 10.1093/cercor/bhu093. PMID: PMC4553719.
55. Allen TA, Morris AM, Mattfeld AM, Stark CEL, Fortin NJ (2014). A sequence of events model of episodic memory shows parallels in rats and humans. *Hippocampus*, 24(10): 1178-88.
56. Das T, Ivleva E, Wagner A, Stark CEL, Tamminga CA (2014). Loss of pattern separation performance in schizophrenia suggests dentate gyrus dysfunction. *Schizophrenia Research*, 159(1): 193-7. PMID: PMC4177293
57. Mattfeld AM & Stark CEL (2015). Functional contributions and interactions between human hippocampus and subregions of the striatum during arbitrary associative learning and memory. *Hippocampus*, 25: 900-911. PMID: PMC4492918

58. Allen TA, Morris AM, Stark SM, Fortin NJ, Stark CEL (2015). Memory for sequences of events impaired in typical aging. *Learning and Memory*, 22(3): 138-48. PMID: PMC4340129
59. Yushkevich PA, Amaral RS, Augustinack JC.....Stark CEL.....Zeineh MM (2015). Quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal subregions in vivo MRI: Towards a harmonized segmentation protocol. *NeuroImage*, DOI 10.1016/j.neuroimage.2015.01.004. PMID PMC4387011
60. Stark SM, Stevenson R, Wu C, Rutledge S, Stark CEL (2015). Stability of age-related deficits in mnemonic similarity across task variations. *Behavioral Neuroscience*, 129(3): 257-268. PMID PMC4451612
61. Bennett LJ, & Stark CEL (2016) Mnemonic discrimination relates to perforant path integrity: An ultra-high-resolution diffusion tensor imaging study. *Neurobiology of Learning & Memory*, 129:107-12. PMID: PMC2699874
62. Clemenson GD, & Stark CEL (2015) Virtual environmental enrichment through video games improves hippocampal-associated memory. *Journal of Neuroscience*, 35(49): 16116-16125. PMID: PMC4682779
63. LePort AKR, Stark SM, McGaugh JL, & Stark CEL (2016) Highly Superior Autobiographical Memory: Quality and quantity of retention over time. *Frontiers in Psychology*, 6:2017. doi: 10.3389/fpsyg.2015.02017. PMID: PMC4720782
64. Saletin JM, Goldstein-Piekarski AN, Greer SM, Stark S, Stark CEL, & Walker MP (2016) Human hippocampal structure: A novel biomarker predicting mnemonic vulnerability to, and recovery from, sleep deprivation. *Journal of Neuroscience*, 36(8): 2355-2363. PMID: PMC4764658
65. LePort AKR, Stark SM, McGaugh JL, & Stark CEL (2016) A cognitive assessment of Highly Superior Autobiographical Memory. *Memory*, 25(2):276-88. PMID: PMC5488704
66. Mesina L, Wilber AA, Clark BJ, Dube S, Demecha AJ, Stark CEL, & McNaughton BL (2016) A methodological pipeline for serial-section imaging and tissue realignment for whole-brain functional and connectivity assessment. *Journal of Neuroscience Methods*, 266: 151-160. PMID: PMC5695690
67. Wisse LEM, Daugherty, AM.....Stark, CEL.....Hippocampal Subfields Group (2016) A harmonized segmentation protocol for hippocampal and parahippocampal subregions: Why do we need one and what are the key goals? *Hippocampus*, 27(1): 3-11. PMID: PMC5167633
68. Wais PE, Jahanikia S, Steiner D, Stark CEL, Gazzaley A (2017) Retrieval of high-fidelity memory arises from distributed cortical networks. *NeuroImage*, 149: 178-189. PMID: PMC5367976
69. Huffman DJ & Stark CEL (2017) Age-related impairment on a forced-choice version of the Mnemonic Similarity Task. *Behavioral Neuroscience*, 131(1): 55-67. PMID: PMC5788023
70. Nikolova S, Stark SM, & Stark CEL (2017) 3T hippocampal glutamate-glutamine complex reflects verbal memory decline in aging. *Neurobiology of Aging*, 54: 103-111. PMID: PMC5401796
71. Huffman DJ & Stark CEL (2017) The influence of low-level stimulus features on the representation of contexts, items, and their mnemonic associations. *Neuroimage*, 660:77-87. PMID: PMC5511560
72. Stark SM, Reagh ZM, Yassa MA, & Stark CEL (2017) What's in a context? Cautions, limitations, and potential paths forward. *Neuroscience Letters*, 680: 77-87. PMID: PMC5735015
73. Stark SM & Stark CEL (2017) Age-related deficits in the mnemonic similarity task for objects and scenes. *Behavioral Brain Research*, 333: 109-117. PMID: PMC5760178
74. Bennett IJ, Stark SM, & Stark CEL (2018) Recognition memory dysfunction relates to hippocampal subfield volume: A study of cognitively normal and mildly impaired older adults. *Journal of Gerontology: Psychological Sciences*, 74(7): 1132-41. PMID: PMC6748802
75. Stark SM, Frithsen A, Mattfeld AM, Stark CEL (2018) Modulation of associative learning in the hippocampal-striatal circuit based on item-set similarity. *Cortex*, 109:60-73. PMID: PMC6263739
76. Wais P, Montgomery O, Stark CEL, Gazzaley A (2018) Evidence of a causal role for mid-ventrolateral prefrontal cortex based functional networks in retrieving high-fidelity memory. *Scientific Reports*, 8(1): 14877. PMID: PMC6173692
77. Frithsen A, Stark SM, & Stark CEL (2018). Response bias, recollection, and familiarity in individuals with Highly Superior Autobiographical Memory (HSAM). *Memory*, 27(6): 739-46.
78. Clemenson GD, Henningfield CM, & Stark C (2019). Improving hippocampal memory through the experience of a rich Minecraft environment. *Frontiers in Behavioral Neuroscience*, 13:57. PMID: PMC6437107
79. Acharya MM, Baulch JE, Klein PM, Baddour AAD, Apodaca LA, Kramár EA, Alikhani L, Garcia C, Angulo MC, Batra RS, Fallgren CM, Borak TB, Stark CEL, Wood MA, Britten RA, Soltesz I, &

- Limoli CL (2019). New concerns for neurocognitive function during deep space exposures to chronic, low dose rate, neutron radiation. *eNeuro*, 6(4), August 5, 2019. <https://doi.org/10.1523/ENEURO.0094-19.2019>. PMID: PMC6709229
80. Stark SM, Kirwan CB, & Stark CEL (2019). Mnemonic Similarity Task: A Tool for Assessing Hippocampal Integrity. *Trends in Cognitive Science*, 23(11): 938-51.
 81. Olsen RK, Carr VA, ... Stark CEL ... Wisse LM on behalf of the Hippocampal Subfields Group (2019). Progress update from the hippocampal subfields group. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 11, 439-499. <http://doi.org/10.1016/j.dadm.2019.04.001>
 82. Levine L, Lench H, Stark C, Carlson S, Carpenter Z, Stark S, & Frithsen A (2019). Predicted and remembered emotion: Tomorrow's vividness trumps yesterday's accuracy. *Memory*, 28(1): 128-140.
 83. Klippenstein JL, Stark SM, Stark CEL, Bennett IJ (2020) Neural substrates of mnemonic discrimination: A whole-brain fMRI investigation. *Brain & Behavior*, doi: 10.1002/brb3.1560.
 84. Radhakrishnan H, Stark SM, & Stark CEL (2020) Microstructural alterations in hippocampal subfields mediate age-related memory decline in humans. *Frontiers in Aging Neuroscience*, doi.org/10.3389/fnagi.2020.00094.
 85. Clemenson GD, Stark SM, Rutledge SM, & Stark CEL (2020) Enriching hippocampal memory function in older adults through video games. *Behavioral and Brain Research*, doi: 10.1016/j.bbr.2020.112667
 86. Kolarik BK, Stark SM, & Stark CEL (2020) Enriching hippocampal memory function in older adults through real-world exploration. *Frontiers in Aging Neuroscience*, doi: 10.3389/fnagi.2020.00158
 87. Papp KV, Rentz DM, Maruff P, Sun CK, Raman R, Donohue MC, Schembri A, Stark C, Yassa MA, Wessels AM, Yaari R, Holdridge KC, Aisen PS, Sperling RA on behalf of the A4 Study Team (2020) The Computerized Cognitive Composite (C3) in an Alzheimer's Disease Secondary Prevention Trial. *The Journal of Prevention of Alzheimer's Disease*. doi: 0.14283/jpad.2020.38
 88. Ventakesh A, Stark SM, Stark CE, Bennett IJ (2020). Age- and Memory- Related Differences in Hippocampal Gray Matter Integrity Are Better Captured by NODDI Compared to Single-Tensor Diffusion Imaging. *Neurobiology of Aging*, doi:10.1016/j.neurobiolaging.2020.08.004
 89. Stark SM, Frithsen A, & Stark CEL. (2020) Age-related alterations in functional connectivity along the longitudinal axis of the hippocampus and its subfields. *Hippocampus*.
 90. Clemenson GD, Wang L, Mao Z, Stark SM, Stark CEL (2020). Exploring the spatial relationships between real and virtual experiences: What transfers and what doesn't?. *Frontiers in Virtual Reality*
 91. Hippocampal Subfield Volumetry from Structural isotropic 1 mm³ MRI Scans: A Note of Caution (2020). Wisse L., Chételat G., Daugherty A., de Flores R., La Joie R., Mueller S., Stark C., Wang L., Yushkevich P., Berron D., Raz N., Bakker A., Olsen R., Carr V. *Human Brain Mapping* <http://dx.doi.org/10.1002/hbm.25234>
 92. Levine L, Murphy G, Lench H, Greene C, Loftus E, Tinti C, Schmidt S, Muzzulini B, Grady R, Stark S, & Stark, C. (in press). Remembering Facts versus Feelings in the Wake of Political Events. *Cognition and Emotion*.

Book Chapters

1. Stark CEL & Squire,LR (2002). Functional magnetic resonance imaging (fMRI). In *McGraw-Hill 2002 Yearbook of Science and Technology*, p 122-124. McGraw-Hill, New York.
2. Stark CEL (2007). The Functional Role of the Human Hippocampus and Memory. In *The Hippocampus*. P. Anderson, R. Morris, D. Amaral, T. Bliss & J. O'Keefe (Eds). Oxford University Press
3. Squire LR & Stark,CEL (2008). Memory Systems. In *Topics in Integrative Neuroscience: From Cells to Cognition*. J. Pomerantz & M. Crair (Eds.), Cambridge University Press
4. Stark CEL (2010). The Neural Basis of Declarative Memory. In *Encyclopedia of Behavioral Neuroscience*. G. Koob, M. LeMoal, R. Thompson (Eds). Elsevier.
5. Stark SM & Stark CEL (2015) Introduction to Memory. In *Neurobiology of Language*. G. Hickok & S. Small (Eds). p 841-854. Elsevier.
6. Stark SM & Stark CEL (2017) The Aging Hippocampus: Linking Animal and Human Research. In *Cognitive Neuroscience of Aging, 2nd Edition*. R. Cabeza, L Nyberg, & D. Park (Eds). p. 273-300. Oxford University Press.
7. Clemenson GD, Gage, FH, & Stark CEL (2018) Environmental enrichment and neuronal plasticity. In *The Oxford Handbook of Developmental Neural Plasticity*. MV Chao (Ed). Oxford Handbooks Online.

Peer-Reviewed Conference Papers

1. Liu TL, Stark CEL, Wong EC & Buxton RB (2001) Quantitative imaging of hippocampal perfusion during a memory encoding task. *Proceedings of the International Society for Magnetic Resonance in Medicine*, 9, 1285.
2. Jedynak BM, Izard C & Stark CEL (2005) Automatic landmarking of magnetic resonance brain images. *SPIE: Medical Imaging*, February 2005, 5747-151
3. Izard C, Jedynak B & Stark C. (2006) Spline-Based Probabilistic Model for Anatomical Landmark Detection. *Medical Image Computing and Computer-Assisted Intervention 2006*.

Popular Press Articles and Commentaries

1. Stark, CEL (2014). Truth, Lies, and False Memories: Neuroscience in the Courtroom. *Dana Foundation: Report on Progress 2014*. October Issue.
2. Stark SM, & Stark CEL (2019). Excitatory/inhibitory imbalance in anterior lateral occipital cortex can impair hippocampal mnemonic discrimination. *Neuron*, 101: 360-362.
3. Suthana N, Ekstrom AD, Yassa MA, & Stark C. (in press). Pattern Separation in the Human Hippocampus: Response to Quiroga. *Trends in Cognitive Science*

INVITED SCIENTIFIC TALKS

1. *Memory and fMRI*. 2000 McDonnell-Pew Center for Cognitive Neuroscience Retreat, San Diego. June 10, 2000
2. *fMRI activity in the hippocampal region during recognition memory*. WA talk, UCSD Department of Cognitive Science. November 15, 2000
3. *Memory and its neural mechanisms*. Department of Psychology, Johns Hopkins University. December 12, 2000.
4. *Memory and its neural mechanisms*. Department of Psychology, University of Pittsburgh. January 3, 2001.
5. *Memory and its neural mechanisms*. Department of Psychology, University of Pennsylvania. January 10, 2001.
6. *fMRI activity in the hippocampal region during memory retrieval*. 25th Annual Winter Conference on the Neurobiology of Learning and Memory at Park City. January 16, 2001.
7. *Memory and its neural mechanisms*. Department of Psychology, Northwestern University. January 24, 2001.
8. *Memory and its neural mechanisms*. Department of Psychology, University of California Los Angeles. January 30, 2001.
9. *Memory and its neural mechanisms*. Department of Psychiatry University of California San Diego. February 14, 2001.
10. *The validity of fMRI*. 17th Annual Center for the Neurobiology of Memory Spring Meeting. April 20, 2001.
11. *Memory and its neural mechanisms*. Division of Cognitive Neurology, Johns Hopkins University. January 17, 2002.
12. *Memory and the medial temporal lobes*. National Institute of Mental Health. July 29, 2002.
13. *Recognition memory and priming in severe amnesia*. Memory Disorders Research Society. October 10, 2002.
14. *fMRI of Memory*. Hopkins Dementia Retreat. January 24, 2004.
15. *fMRI of Memory and the Medial Temporal Lobes*. University of Utah. March 30, 2004.
16. *Memory and the medial temporal lobes*. George Mason University. November 17, 2004
17. *fMRI, Memory, and the Medial Temporal Lobes*. Boston University. December 13, 2004.
18. *Items, Associations, and Pattern Separation*. Memory Disorders Research Society. October 1, 2005.
19. *Memory and the Medial Temporal Lobes*. University of Maryland. December 8, 2005.
20. *fMRI of the Medial Temporal Lobes*, 30th Annual Winter Conference on the Neurobiology of Learning and Memory at Park City. January 7, 2006.
21. *Examining the Neural Bases of the Misinformation Effect* Minisymposium: Neuroimaging of False Memories. Society for Neuroscience, October 16, 2006.
22. *Pattern Separation in the Human MTL*. Functional Organization of the Medial Temporal Lobe Memory System Workshop. Boston University and the Charles River Association for Memory. May 9, 2007
23. *Memory and the Medial Temporal Lobes*. American Psychological Association, May 26, 2007

24. *Examining the Neural Bases of the Misinformation Effect*. American Psychological Association, May 27, 2007.
25. *Declarative Memory, Pattern Separation, and the Medial Temporal Lobes*. University of California, Irvine, June 21, 2007
26. *Declarative Memory, Pattern Separation, and the Medial Temporal Lobes*. Brigham Young University, September 26, 2007
27. *High Resolution Imaging of the Human Hippocampus*. General Clinical Research Center, Neuroimaging Core, UCI, Brain Map Lecture Series. February 15, 2008
28. *Pattern Separation in the Human Hippocampal CA3 and Dentate Gyrus*. Center for the Neurobiology of Learning and Memory, Spring Meeting. April 17, 2008
29. *What can MRI Measure?* Brain Cells, Inc., October 30, 2008
30. *Dichotomies*. Center for the Neurobiology of Learning and Memory, Fall Meeting. December 12, 2008
31. *Memory and the Medial Temporal Lobes*. Center for Molecular and Behavioral Neuroscience, Rutgers University, December 17, 2008
32. *The Aging Hippocampus*. Center for Cognitive Neuroscience, Spring Meeting, UCI. March 13, 2009.
33. *Pattern Separation in the Human Hippocampus*. Searching for Principles Underlying Memory in Biological Systems, The Banbury Center, Cold Spring Harbor Labs, April 13, 2009.
34. *Neuroscience of Memory*. Judicial Seminar on Emerging Issues in Neuroscience (AAAS, Federal Judicial Center, National Center for State Courts, the American Bar Association, and Dana Foundation), Reno, NV, May 11, 2009.
35. *Neuroscience of Deception*. Judicial Seminar on Emerging Issues in Neuroscience (AAAS, Federal Judicial Center, National Center for State Courts, the American Bar Association, and Dana Foundation), Reno, NV, May 11, 2009.
36. *Pattern Separation in the Human Hippocampus*. Southern California Learning and Memory Symposium, University of California, Los Angeles, June 3, 2009.
37. *Pattern Separation in the Human Hippocampus*. Annual Anatomy & Neurobiology Graduate Retreat, UCI. June 11, 2009.
38. *Pattern Separation and the Aging Hippocampus*. Mini-Symposium "The human medial temporal lobe and memory: An experimental perceptive." Norwegian University of Science and Technology (NTNU), Trondheim, Norway, August 27, 2009.
39. *Pattern Separation in the Human Hippocampus*. Cognitive Neuroscience Brownbag, University of California, San Diego, October 27, 2009.
40. *Pattern Separation and the Aging Hippocampus*. Perspectives in Neuroscience Seminar Series, University of California Davis Center for Neuroscience, November 12, 2009.
41. *Pattern Separation in the Human Hippocampus*. Neuroscience Seminar Series, University of California, San Diego, December 15, 2009.
42. *High Resolution DTI Imaging of the Human Perforant Path*. Brain Map Seminar, UC Irvine, February 12, 2010
43. *Pattern Separation and Our Aging Hippocampus*. CNLM Fellows Lunch, University of California, Irvine, March 19, 2010.
44. *Pattern Separation and Our Aging Hippocampus*. The Mysteries and Marvels of Memory, NYU Symposium' New York University, March 27, 2010.
45. *Pattern Separation and Our Aging Hippocampus*. In: A Dialog With the Hippocampus, American Psychological Association, San Diego, CA, August 13, 2010.
46. *High Resolution Structural and Functional Imaging of the MTL*. Cognitive Aging RFA Awardees Annual Meeting, National Institutes of Health, Bethesda, MD, October 6, 2010.
47. *High Resolution DTI Imaging of the Perforant Path's Degradation with Age*. Memory Disorders Research Society 2010 Annual Meeting, Evanston, IL, October 15, 2010.
48. *Pattern Separation and Our Aging Hippocampus*. Special Seminar, Columbia University, New York City, NY, November 22, 2010.
49. *Distributed Representations*. CNLM Winter Meeting, University of CA, Irvine, CA, December 10, 2010.
50. *The Aging Hippocampus*. Winter Conference on Learning and Memory, Park City, UT, January 8, 2011.
51. *Pattern Separation and the Dentate Gyrus*. Winter Conference on Neural Plasticity. Moore, Tahiti, February 17, 2011.
52. *Where did I put my keys? Tales from the hippocampus for anyone over 30*. UCI Distinguished Lecture Series on Brain, Learning, and Memory. Irvine, CA, March 16, 2011.

53. *Neuroimaging of True and False Memories*. Center for the Neurobiology of Learning and Memory, Spring Meeting, April 22, 2011.
54. *Pattern Separation and our Human Hippocampus*. Mt. San Antonio College Fifth Annual Health Professions Conference, Walnut, CA, May 27, 2011.
55. *Pattern Separation and Human Hippocampus*. Max Planck Institute for Human Development, Center for Lifespan Psychology Colloquia Series, Berlin, Germany, September 12, 2011.
56. *Neuroimaging of Hippocampal Subfields in Older Adults and MCI*. Alzheimer's Disease Research Center Site Review, San Diego, CA, September 23, 2011.
57. *High Resolution Structural and Functional Imaging of the MTL*. Cognitive Aging RFA Awardees 2nd Annual Meeting, National Institutes of Health, Bethesda, MD, October 21, 2011.
58. *Applications of Neuroscience to National Security*. Committee on Ethical and Societal Issues in National Security Applications of Emerging Technologies. Beckman Center, National Academy of Sciences, Irvine, CA. November 2, 2011.
59. *The Cognitive Neuroscience of True and False Memories*. Fred Kavli Public Symposium: The Brain on Trial: Neuroscience and the Law. 41st Annual Meeting for the Society for Neuroscience, Washington D.C., November 12, 2011.
60. *Pattern Separation and the Aging Hippocampus*. UCSD ADRC Neuroregeneration Seminar Series. UCSD, San Diego, CA. December 20, 2011.
61. *The Intrinsic Functional Connectivity of the Medial Temporal Lobe*. Winter Conference on Learning and Memory, Park City, UT, January 4, 2012.
62. *Pattern Separation and the Aging Hippocampus*. Winter Conference on Learning and Memory, Park City, UT, January 5, 2012.
63. *Where did I put my keys? Tales from the hippocampus for anyone over 30*. 40th Annual International Neuropsychological Society Meeting, Montreal, Canada, February 16, 2012.
64. *Pattern Separation, Episodic Memory, and Aging*. 10th Tsukuba International Conference on Memory, Functional Neuroimaging of Episodic Memory, Tokyo, Japan, March 5, 2012.
65. *Memory Frontiers: Who controls the brain controls the past*. National Academy's Division on Earth and Life Studies Meeting. Washington, D.C. April 23, 2012.
66. *Where did I put my keys? Tales from the hippocampus for anyone over 30*. 18th Annual Meeting of the Minds Conference, Anaheim, CA, May 3, 2012.
67. *Pattern Separation and the Aging Hippocampus*. Functional Architecture of Memory Conference, Bochum, Germany, May 25, 2012.
68. *Pattern Separation and the Aging Hippocampus*. 19th Joint Symposium on Neural Computation, Riverside, CA, June 2, 2012.
69. *Imaging the Aging Hippocampal Formation II*. Workshop on Cognitive Aging. Cold Spring Harbor Laboratories, Cold Spring Harbor, NY, June 14, 2012.
70. *High Resolution Structural and Functional Imaging of the MTL*. Cognitive Aging RFA Awardees 3rd Annual Meeting, National Institutes of Health, UCI, Irvine, CA, August 23, 2012.
71. *Fornix Integrity Predicts Behavioral Pattern Separation Performance*. Winter Conference on Learning and Memory, Park City, UT, January 3, 2013.
72. *Pattern Separation in the Aging Hippocampus*. Nu Rho Psi Honor Society Meeting at UCI, Irvine, CA, January 30, 2013.
73. *Episodic Memory & Aging: Contributions from Brain Imaging Studies*. The 41st Annual Meeting of the International Neuropsychological Society, Waikoloa, HI, February 8, 2013.
74. *The Role of Hippocampal Subfields in Pattern Separation, aging, and MCI*. 4th Annual Conference on Memory & Cognition. Ruhr University, Bochum, Germany, March 5, 2013.
75. *Advanced Normalization Tools*. Neuroimaging Group, University of CA, San Diego, April 4, 2013.
76. *Pattern Separation in the Aging Hippocampus*. McDonnell Consortium Meeting, Salk Institute, San Diego, CA, May 24, 2013.
77. *Hippocampal subfield segmentation for high-resolution fMRI*. Hippocampal Subfield Segmentation Summit, University of CA, Davis, CA, June 21, 2013.
78. *High Resolution Structural and Functional Imaging of the MTL*. Cognitive Aging RFA Awardees 4th Annual Meeting, National Institutes of Health, Columbia University, NY, July 25, 2013.
79. *The Representationally Agnostic Hippocampus*. Memory Disorders Research Society 2013 Annual Meeting, Montreal, Canada, October 11, 2013.

80. *Pattern Separation, the dentate gyrus, and aging*. Workshop on Cognitive Aging. Palisades, NY, October 24, 2013.
81. *The Role of Hippocampal Subfields in Pattern Separation, Aging, and MCI*. Symposium on Multilevel Analysis of Pattern Separation and Completion (Session Chair) at the Annual Meeting for the Society for Neuroscience, San Diego, CA, November 9, 2013.
82. *When it comes to sequence memory, we're just big rats (or they're little people)*. Winter Conference on Learning and Memory, Park City, UT, January 3, 2014.
83. *Assessing dentate gyrus function in the human*. Adult Neurogenesis: From Stem Cells to Therapies. Tata Institute of Fundamental Research, Mumbai, India, February 8, 2014.
84. *Neurogenesis and Memory*. Kavili Roundtable Discussion (R. Gage, S. Small. C. Stark). February 19, 2014.
85. *When it comes to sequence memory, we're just big rats (or they're little people)*. Winter Conference on Neural Plasticity, Vieques Island, US Caribbean, February 23, 2014.
86. *Pattern Separation and the Aging Brain*. Neuroscience Program Colloquia, Beckman Center, University of Illinois, Champagne, IL, March 11, 2014.
87. *The Neuroscience of True and False Memories*. European Molecular Biology Laboratory Forum on Science and Society. Heidelberg, Germany. March 24, 2014.
88. *Pattern Separation and the Aging Brain*. Center for Memory and Brain Colloquia, Conte Center for Neuroscience, Boston University, Boston, MA, April 28, 2014.
89. *Inferring Pattern Separation in the Human Hippocampus*. Center for the Neurobiology of Learning and Memory, UC Irvine, May 1, 2014.
90. *High Resolution Structural and Functional Imaging of the MTL*. Cognitive Aging RFA Awardees 5th Annual Meeting, National Institutes of Health, Bethesda, Aug 15, 2014.
91. *Keynote Address: Neuroscience of Memory and the Law*. European Campus of Excellence Program. Ruhr University, Bochum, Germany. September 7, 2014.
92. *Observing Memory*. European Campus of Excellence Program. Ruhr University, Bochum, Germany. September 8, 2014.
93. *Memory and the Aging Hippocampus*. European Campus of Excellence Program. Ruhr University, Bochum, Germany. September 8, 2014.
94. *Learning & Forgetting in Individuals with HSAM*. Memory Disorders Research Society 2014 Annual Meeting, Austin, TX, September 19, 2014.
95. *Pattern Separation and the Aging Brain*. Thomas Jefferson University Department of Neuroscience, Philadelphia, PA, December 2, 2014.
96. *Differential Roles of Hippocampal Subfields and Hippocampal Connectivity in Memory*. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA, March 29, 2015.
97. *Pattern Separation and the Aging Brain*. Tulane Center for Aging. Tulane University, New Orleans, LA, April 23, 2015.
98. *Disruption of Hippocampal Function Across the Lifespan*. Advancing the Frontiers of Human Neuroimaging Research: Allergan Conference. University of California, Irvine, CA, April 30, 2015.
99. *The Hippocampus, Its Circuitry, and Memory: Effects of Aging and Individual Differences*. UCI Brain Mapping Colloquia Series. University of California, Irvine, CA, May 5, 2015.
100. *Memory's many forms and mechanisms: Evidence from the neurobiology of memory in humans and animals*. Swiss Memory Workshop, Spiez Switzerland, August 25, 2015.
101. *Evidence for conjunctive coding of context, item, and position in human retrosplenial cortex*. Memory Disorders Research Society, Pembroke College, Cambridge UK, September 10, 2015.
102. *Disruption of Hippocampal Function across the Lifespan*. Irvine Valley College Meeting of Psi Beta Society. Irvine, CA, September 25, 2015.
103. *A Cross-Species Investigation of Sequence Memory*. Temporal Dynamics of Learning Center, UCSD. San Diego, CA, October 28, 2015.
104. *Virtual Environmental Enrichment through Video Games*. Tsukuba-UCI Science Partnership Conference 2015, Irvine, CA, December 11, 2015.
105. *Dentate Gyrus Gray Matter Integrity Correlates with Age-related Declines in Mnemonic Discrimination*. Winter Conference on Learning and Memory, Park City, UT, January 7, 2016.
106. *Can we Image the Effects of Enrichment and Neurogenesis in Humans*. McDonnell Consortium Meeting, Salk Institute, San Diego, CA, January 14, 2016.

107. *Imaging the Effects of Cognitive Aging, Disease, and their Treatments on the Hippocampus*. Allergan Lecture, Allergan Campus, Irvine, CA, June 7, 2016.
108. *Using Neuroimaging to Explore Pattern Separation and the Aging Hippocampus*. Neuroimaging and Informatics, University of Southern California, Los Angeles, CA, September 15, 2016.
109. *Is that a Memory Representation I See Before Me?* Memory Disorders Research Society, Princeton University, Princeton, NJ, September 29, 2016.
110. *Behavioral Parallels Between Humans and Rodents*. Radiation Research Society 62nd Annual Meeting. Waikoloa, HI. October 16, 2016.
111. *The Nature and Nurture of Off-Scale Human Memory: Off-Scale Memory Capacity*. The Past in the Present - The Making of Memories: EMBL Science and Society Conference. Heidelberg, Germany. November 4, 2016.
112. *Using Neuroimaging to Explore Pattern Separation and the Aging Hippocampus*. UCI Radiology Department Research Seminar Series, University of California, Irvine, CA, January 11, 2017.
113. *The Adaptive Nature of Memory's Imperfections*. *Memory and Meaning Conference*. University of California, Irvine, CA, April 28, 2017.
114. *The Longitudinal Axis of the Hippocampus*. 4th Provence Summer Workshop: Up & Down in the Hippocampus, Domaine des Escaunes, France, May 31, 2017.
115. *Translational Paradigms for Measuring Cognition: Rats to Humans*. NASA Workshop: Optimization of Translational Animal Models to Assess Human Spaceflight Performance for Studying the In-Flight Effects of Space Radiation: The Journey to Mars and Back. Houston, TX, June 13, 2017.
116. *Remembering Things that Never Happened*. Art, Neuroscience, and Psychiatry Conference, University of California Los Angeles, November 10, 2017.
117. *Altering human hippocampal function through aging and environmental enrichment*. Neuroscience Speaker's Series, Florida International University, Miami, FL, January 26, 2018.
118. *Altering human hippocampal function through aging and environmental enrichment*. Zhejiang University, Hangzhou China, June 24, 2018.
119. *Altering human hippocampal function through aging and environmental enrichment*. Beijing Normal University, Beijing China, June 29, 2018.
120. *Altering human hippocampal function through aging and environmental enrichment*. Peking Normal University, Beijing China, June 30, 2018.
121. *Altering human hippocampal function through aging and environmental enrichment*. Chinese Academy of Sciences, Beijing China, June 30, 2018.
122. *Using neuroimaging to explore pattern separation and the aging hippocampus*. University of Maryland, Baltimore, MD. September 14, 2018.
123. *The Impact of Complementary Learning Systems on Studies of Hippocampal Pattern Separation*. Parallel Distributed Processing Symposium honoring Jay McClelland. Princeton University, Princeton, NJ. September, 29, 2018.
124. *Of mice and men: Bridging the gaps in brains and behavior*. A Celebration of the Career of Larry R. Squire, University of California, San Diego, CA. November 2, 2018.
125. *Human environmental enrichment's effect on memory*. Park City Winter Conference on the Neurobiology of Learning and Memory, Park City, UT. January 4, 2019.
126. *Cross-species assessment of hippocampal function and the effects of space-based radiation*. 2019 NASA Human Research Program Investigator's Workshop, Galveston, TX. January 25, 2019.
127. *Detecting age-related changes in hippocampal metabolites using magnetic resonance spectroscopy*. Society of Biological Psychiatry, May 16, 2019.
128. *Neuroimaging in aging and Alzheimer's Disease*. BrightFocus Alzheimer's Fast Track 2019. Chicago, IL, October 16, 2019.
129. *Lost in Translation*. Radiation Research Society, September 1, 2020
130. *Why does our memory decline with age (and can we do anything about it)?* McLean Hospital, Harvard Medical School, January 19, 2021
131. *Old Brains, new tricks: Can environmental enrichment improve aging memory?*, Center for Vital Longevity, University of Texas at Dallas, January 25, 2021

PUBLIC TALKS AND OUTREACH

1. *Dialog on Deception*, a debate on the use of fMRI for lie detection. Judicial Seminar on Emerging Issues in Neuroscience (AAAS, National Judicial College, and Dana Foundation), November 14, 2007
2. *The Cognitive Neuroscience of True and False Memory*. Judicial Seminar on Emerging Issues in Neuroscience (AAAS, National Judicial College, and Dana Foundation), November 15, 2007
3. *How do we Figure Out How the Brain Works?* Talks and lab tours for over 15 groups of grade school and high school students in 2008-2013.
4. *Neuroscience of Deception*. AAAS, Federal Judicial Center, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Chicago, IL, May 7, 2008
5. *Cognitive Neuroscience of True and False Memory*. AAAS, Federal Judicial Center, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Chicago, IL, May 7, 2008
6. *To the Best of My Recollection: Trusting Memory when Making Judicial Decisions*. Arizona Judicial Conference, June 16, 2008
7. *Neuroscience of Deception*. AAAS, Federal Judicial Center, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Houston, TX, October 6, 2008
8. *Neuroscience of Memory*. AAAS Federal Judicial Center, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Houston, TX, October 6, 2008
9. *Neuroscience of Memory*. AAAS, National Judicial College, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Reno, NV, May 11, 2009
10. *Neuroscience of Deception*. AAAS, National Judicial College, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Reno, NV, May 11, 2009
11. *Neuroscience of Memory*. AAAS, American Bar Association Judicial Division, Federal Judicial Center, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Chicago, IL, July 29, 2009
12. *Neuroscience of Deception*. AAAS, American Bar Association Judicial Division, Federal Judicial Center, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Chicago, IL, July 29, 2009
13. *Friends of the CNLM: Dinner, Discovery, and Dessert*. Talks, lab tours, and dinner. June 15, 2009.
14. *Where did I put my keys? Tales from the hippocampus for anyone over 30*. Evenings to Remember Lecture for the Center for the Neurobiology of Learning and Memory, University of California Irvine, September 21, 2009.
15. *Neuroscience of Memory*. AAAS, National Center for State Courts, National Clearinghouse for Science, Technology and the Law (Stetson), and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Gulfport, FL, October 6, 2009
16. *Neuroscience of Deception*. AAAS, National Center for State Courts, National Clearinghouse for Science, Technology and the Law (Stetson), and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Gulfport, FL, October 6, 2009
17. *Neuroscience of Memory and Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association Judicial Division, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. St. Louis, MI, June 3, 2010
18. *Neuroscience of Memory and Deception*. AAAS and National Association of Administrative Law Judiciary - Judicial Seminars on Emerging Issues in Neuroscience. Pepperdine University, Malibu, CA, October 13, 2010
19. *Neuroscience of Memory*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. San Diego, CA, November 13, 2010
20. *Neuroscience of True, False, and Imaginary Memory*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Sandra Day O'Connor College of Law, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Scottsdale, AZ, March 29, 2011
21. *Chief Executive Roundtable Spring Forum*. Work presented by Dean Al Bennett as part of "New Research, New Discoveries in Biological Sciences", March 31, 2011.
22. *The Cognitive Neuroscience of True and False Memory*. American Bar Association (Science & Technology Law) - Neuroscience and the Law: Memory and Lie Detection. May 5, 2011

23. *Human Research in the Neuroscience of Memory*. The Sage Hill High School Spring Seminar Series, Newport Beach, CA, May 31, 2011.
24. *Neuroscience of True, False, and Imaginary Memory*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Philadelphia, PA, October 31, 2011
25. *Neuroscience of Memory and Deception*. Oklahoma Judicial Conference. November 1, 2011
26. *The Cognitive Neuroscience of True and False Memories*. Fred Kavli Public Symposium: The Brain on Trial: Neuroscience and the Law. 41st Annual Meeting for the Society for Neuroscience, Washington D.C., November 12, 2011.
27. *To the Best of My Recollection: The cognitive neuroscience of true and false memories*. Faculty of Federal Advocates. Denver, CO, December 15, 2011
28. *The Nature of Memory* on "Midmorning" with Kerri Miller. Minnesota Public Radio (MPR) January 12, 2012, 9:45AM CST. Call-in show on memory, false memory, and repressed memories.
29. *The Cognitive Neuroscience of True and False Memories*. Neuroscience and Criminal Justice in the 21st Century: A Cross-Country view. AAAS 2012 Annual Meeting. Vancouver, Canada, February 19, 2012
30. *Forget with the Program: Skeptic Check* with Gary Niederhoff, Big Picture Science Radio Show, May 15, 2012.
31. *Neuroscience of Memory and Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. New Orleans, LA, June 29, 2012.
32. *Neuroscience of Memory and Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Minneapolis, MN, October 26, 2012.
33. *Institute for Brain Potential: Memory Seminar for Health Professionals*. Lectures to 200+ health professionals. 2011-2013
34. *Pattern Separation and the Aging Hippocampus*. Chapter meeting of Nu Rho Psi, Irvine, CA, January 30, 2013.
35. *The Cognitive Neuroscience of True, False, and Imaginary Memories*. Federal Judicial Center, National Workshop for US Magistrate Judges, New Orleans, LA, April 26, 2013.
36. *The Cognitive Neuroscience of True, False, and Imaginary Memories*. Federal Judicial Center, National Workshop for US Magistrate Judges, San Diego, CA, July 31, 2013.
37. *Neuroscience of Memory & Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Portland, OR, October 29, 2013.
38. *Neuroscience of Memory & Deception*. Federal Judicial Center, Court Web. January 29, 2014.
39. *The Aging Brain*. Rotary Club of Irvine, Irvine, CA, March 13, 2014.
40. *Neuroscience of Memory & Deception*. United States District Court Southern District of Florida Bench and Bar Conference. Miami Beach, FL, April 25, 2014.
41. *Neuroscience of Memory: Implications for the Courtroom*. United States District Court of Nevada, Conference on Brain Games: Memory, Ethics, and Technology. Reno, NV, May 8, 2014.
42. *The Neuroscience of True and False Memory*. The Lawyers Club of Chicago. Chicago, IL, May 27, 2014.
43. *Neuroscience of Memory & Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Madison, WI, June 3, 2014.
44. *Where Did I Put My Keys? Tales from the Hippocampus for Anyone Over 30*. Southern Region of the Professional Fiduciary Association of CA. Long Beach, CA, July 22, 2014.
45. *Neuroscience of Memory: Implications for the Courtroom*. Association of Business Trial Lawyers 41st Annual Seminar. Oahu, HI, October 15, 2014.
46. *Neuroscience of Memory & Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Austin, TX, October 21, 2014.
47. *Where did I put my keys? Takes from the hippocampus for anyone over 30*. Sigma Xi. Orange County, CA, January 20, 2015.
48. *Neuroscience of Memory: Implications for the Courtroom*. Association of Business Trial Lawyers. San Diego, CA, February 27, 2015.
49. *Cognitive Bias and Criminal Law*. Establishing Innocence or Guilt Program. Plano, TX, February 19, 2015.

50. *Neuroscience of Memory: Implications for the Courtroom*. J. Reuben Clark Law Society. Las Vegas, NV, March 6, 2015.
51. *Is That What Happened?* Sunday Assembly, Los Angeles, CA, March 8, 2015 ([link](#)).
52. *False Memories and Inaccuracies: How do they affect witnesses and juries?* OCSC Education Conference. Irvine, CA, April 18, 2015.
53. *Neuroscience of Memory: Implications for the Courtroom and what can we do about it?* Criminal Law and Sentencing Institute: Wisconsin Judiciary. Elkhart Lake, WI, May 14, 2015.
54. *Neuroscience of Memory & Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Irvine, CA, June 2, 2015.
55. *Neuroscience of Memory: Implications for the Courtroom*. Lewis, Brisbois, Brisgaard & Smith LLP Annual Retreat. Carlsbad, CA, June 13, 2015.
56. *Eyewitness Testimony: Untangling Truth, Lies, and False Memories*. Establishing Innocence or Guilt Program. Plano, TX, August 19, 2015.
57. *How much can your brain change as an adult?* Moving Through Life Event, Exercise Medicine and Sports Sciences Initiative at UCI, Irvine, CA, September 12, 2015.
58. *Neuroscience of Memory: Implications for the Courtroom*. Association of Business Trial Lawyers. Los Angeles, CA, September 15, 2015.
59. *Neuroscience of Memory & Deception*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Washington DC, October 5, 2015.
60. *Eyewitness Testimony: Untangling Truth, Lies, and False Memories*. Establishing Innocence or Guilt Program. Houston, TX, October 8, 2015.
61. *Neuroscience of Memory: Implications for the Courtroom*. Association of Business Trial Lawyers. Orange County, CA, November 4, 2015
62. *Highly Superior Autobiographical memory: What Would it Mean to Remember Every Day of Your Life?* Sunday Assembly, Los Angeles, CA, March 13, 2016. ([link](#))
63. *Neuroscience of Memory: Implications for the Courtroom*. Federal Bar Association. Tucson, AZ, April 8, 2016.
64. *Memory, Science, & the Law*. American Bar Association Criminal Law Section. Albuquerque, NM, April 29, 2016.
65. *Where did I put my keys?* Osher Lifelong Learning Institute, UCI, Irvine, CA, May 9, 2016.
66. *Neuroscience of Memory*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Vanderbilt University, Nashville, TN, May 16, 2016.
67. *How Does the Brain Work and How do we Figure Out how the Brain Works?* Turtle Rock Elementary School, 4th Grade Class, Irvine, CA, June 2, 2016.
68. *Distortions, Biases, and an Adaptive Memory System*. Ninth Circuit Judicial Conference Unit Executives Meeting, Big Sky, MT, July 13, 2016.
69. *Memory, Science, & the Law*. Ninth Circuit Judicial Conference Neuroscience Panel, Big Sky, MT, July 14, 2016.
70. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. University of Washington School of Medicine, St Louis, MO, October 24, 2016.
71. *Human Memory and the Criminal Justice System: How Reliable Is It?* Ohio Commons Pleas Judges Association Winter Conference. Dublin, OH. December 7, 2016.
72. *Using Neuroimaging to Understand How Memory Works*. College Student Interest Group in Neurology (COSIGN). University of California, Irvine, CA, January 18, 2017.
73. *Old Brains, New Tricks*. Sunday Assembly, Los Angeles, CA, March 12, 2017.
74. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Duke University, Raleigh, NC, May 9, 2017.
75. *Memory, Science, and the Law*. Federal Judicial Center: Workshop for Judges of the Sixth Circuit. Cleveland, OH, May 10, 2017.

76. *Human Memory: What you need to know before you enter the courtroom*. Alaska Bar Association. Juneau, AK, May 12, 2017.
77. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. University of Arizona, Tucson, AZ, November 13, 2017.
78. *Neuroscience of Memory: Implications for the Courtroom*. Association of Business Trial Lawyers. Fresno, CA, February 22, 2018.
79. "Lifting the hood" on the brain: *Neuroimaging at UCI*. UCI Parent's day, March 2, 2018.
80. *When will the Law Catch up to Science?* Ohio Association of Magistrates 2018 Spring Conference. Aurora, OH, April 25, 2018.
81. *Memory, Science, and the Law*. Federal Judicial Center: Neuroscience Project Video. Washington, DC, May 17, 2018.
82. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Carnegie Mellon University, Pittsburgh, PA, June 1, 2018.
83. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, Society for Neuroscience, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. University of California, San Diego, CA, October 29, 2018.
84. *Peering inside the Human Brain: Neuroimaging at UCI*. UCI Parents Day. March 8, 2019 ([link](#))
85. *Neuroscience of Memory and its Relation to Addiction*. AAAS and the Montana Supreme Court Judicial Education Committee's Workshop on the Opioid Crisis. Whitefish, MT, May 9, 2019.
86. *Neuroscience of Memory: Implications for the Courtroom*. Judicial Conference of Virginia. Williamsburg, VA, May 14, 2019.
87. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, American Bar Association, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. University of Miami. Miami, FL, June 6, 2019.
88. *When will the law catch up with science? Memory and jury instructions*. Ohio Common Pleas Judges Association Summer Conference, Supreme Court of Ohio. Cincinnati, OH, June 20, 2019.
89. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. University of Colorado, Denver. Denver, CO, September 24, 2019.
90. *Neuroscience of Memory: Implications for the Courtroom*. AAAS, Federal Judicial Center, National Center for State Courts, and Dana Foundation - Judicial Seminars on Emerging Issues in Neuroscience. Annual Meeting of the Wisconsin Judicial Conference, Elkhart Lake, WI, November 7, 2019.
91. *Making an Image with MRI*. Chapter meeting of Nu Rho Psi, Irvine, CA, November 22, 2019.
92. *Neuroscience of Memory: Implications for the Law*. Orange County Bar Association, Litigation section. February 5, 2020.
93. *Altering human hippocampal function through aging and environmental enrichment*. Minority Science Program, UC Irvine, CA. February 6, 2020.
94. *Altering human hippocampal function through aging and environmental enrichment*. Biological Sciences Dean's Distinguished Lecture, UC Irvine, CA. February 25, 2020.
95. *Using "Environmental Enrichment" to Improve Memory as we Age*. Gifted and Talented High School program in Biology, Engineering, Artificial Intelligence and Medicine (GATI BEAM), UC Irvine, July 30, 2020.
96. *Neuroscience of Memory: Implications for the Courtroom*. Arkansas State Judicial Education Webinar. October 15, 2020
97. *Neuroscience of Memory: Implications for the Courtroom*. AAAS and the Dana Foundation – Emerging issues in Neuroscience Judicial Webinar. October 28, 2020
98. *Neuroscience of Memory: Implications for the Courtroom*. In, *Emerging Issues in Neuroscience and the Courts*. Federal Judicial Center, Court Web. November 18, 2020.
99. *Using "Environmental Enrichment to Improve Memory as we Age"*, Dean's Leadership Council, School of Social Sciences, UC Irvine, February 19, 2021

COURSES TAUGHT

Parallel Distributed Processing Workshop. University of Utah Psychology Department, August 1996.
Introduction to Cognitive Psychology. Carnegie Mellon University. Spring 1997.
Introduction to Human Memory. Johns Hopkins University. Spring 2002-04.
Cognitive Neuroscience of Memory. Johns Hopkins University. Fall 2002-05, Spring 2006-07
Cognitive Proseminar (graduate). Johns Hopkins University. (2003-2008, head instructor Fall 2006)
Introduction to Cognitive Psychology. Johns Hopkins University. Fall 2006, Fall 2007
Systems Neuroscience. University of California, Irvine. Winter 2009-12
Scientific Communications (graduate). University of California, Irvine. Winter 2009 -10, Spring 2013, 2015, Winter 2017
Brain Myths (Freshman Seminar). University of California, Irvine. Spring 2009-10
Parallel Distributed Processing Models (quarter-long workshop). University of California, Irvine. Fall 2010
Functional Imaging (graduate). University of California, Irvine, Winter 2011-13
Neuroscience Fundamentals (undergraduate). University of California, Irvine, Winter 2011-16
Behavioral Neurobiology (graduate). University of California, Irvine, Spring 2011-16
Mind, Memory, Amnesia, and the Brain (undergraduate). University of California, Irvine, Spring 2011-18
Matlab for Neuroscientists (graduate). University of California, Irvine, Fall 2015
Programming for Neuroscientists (graduate): University of California, Irvine, Fall 2016-19
Freshman Seminar: Neuroimaging (undergraduate): University of California, Irvine, Fall 2018-19
Human Neuroimaging Lab (undergraduate): University of California, Irvine, Spring 2020

MEDIA AND OUTREACH ACTIVITIES

1. *You Must Remember This* on “Midmorning” with Kerri Miller. Minnesota Public Radio (MPR) December 7, 2004, 10AM CST. Hour-long call-in show on memory.
2. *Making False Memories* on “Talk of the Nation: Science Friday” with Ira Flatow. National Public Radio, February 4, 2005, 3:40PM EST.
3. *The Science of Memory* on “All things Considered”, with Jon Hamilton. National Public Radio, February 9, 2005, 4:40PM EST
4. “Alzheimer’s or just a ‘senior moment?’” by Pat Brennan. Orange County Register, August 10, 2010
5. “UC Irvine scientists discover pathway to brain’s memory storage” by KPCC Wire Services. August 10, 2010
6. “US Researchers Develop New Technique to See Pathway in Human Brain”. Global Times (China), August 11, 2010
7. “Early Prediction of Alzheimer’s Possible with Discovery of New Brain Passage” by Kathy Jones. Med India, August 12, 2010.
8. “Making Nuanced Memories” by Laura Beil, Science News, January 14, 2011.
<https://www.sciencenews.org/article/making-nuanced-memories>
9. *The Nature of Memory* on “Midmorning” with Kerri Miller. Minnesota Public Radio (MPR) January 12, 2012, 9:45AM CST. Call-in show on memory, false memory, and repressed memories.
10. *Forget with the Program: Skeptic Check* with Gary Niederhoff, Big Picture Science Radio Show, May 15, 2012.
11. “The Pre-Alzheimer’s Brain” by Rebecca Voelker, American Psychological Association, March 2013
12. “Researchers ponder brain mapping” by Pat Brennan, Orange County Register, April 28, 2013
13. *The Neuroscience of True and False Memories*, with European Molecular Biology Laboratory Forum on Science and Society. Live-Audience Discussion. http://medias01-web.embl.de/Mediasite/Play/868670d23d354be1ae7d18deb56285ac1d?_ga=1.79414556.94297074.1419974366. March 24, 2014

14. "Aging and the Changing Landscape of Memory" by Bruce Lieberman, Kavli Foundation Newsletter, April 9, 2014.
15. *Is that What Really Happened?*, LA Sunday Assembly. Live-Audience Discussion. <https://www.youtube.com/watch?v=oecFFPBk2uY>. March 8, 2015.
16. 'I can remember everything from everyday': Brisbane woman's very rare health condition., " 7 News Australia, with Kendall Gilding. TV/Film. <https://au.news.yahoo.com/a/29757949/i-can-remember-everything-from-everyday-brisbane-womans-very-rare-health-condition/#page1>. October 8, 2015.
17. "Why Some Video Games Are Good For Your Brain," Fortune, with Hilary Brueck. Online. <http://fortune.com/2015/12/08/video-games-brain/>. December 8, 2015.
18. "Three-dimensional video games could make your memory better," Popular Science, with Dave Gershgorn. Online. <http://www.popsci.com/three-dimensional-video-games-could-make-your-memory-better>. December 8, 2015.
19. "Playing 3D video games can improve your with Gian Volpicelli. Online. <http://www.dailymail.co.uk/sciencetech/article-3351326/Playing-3D-video-games-improve-memory-Tests-improve-recall-12-cent-TWO-WEEKS.html>. December 9, 2015.
20. "3D video games will help battle age-related memory loss or dementia, experts claim," Mirror UK, with JOHN SHAMMAS , JOHN VON RADOWITZ. Online. <http://www.mirror.co.uk/news/uk-news/3d-video-games-help-battle-6979215>. December 9, 2015.
21. "Exercise for the brain: Why 3-D video games might actually be good for your kid," Washington Post, with Meeri Kim. Online. <https://www.washingtonpost.com/news/to-your-health/wp/2015/12/24/exercisefor-the-brain-why-3-d-video-games-might-actually-be-good-for-your-kid>. December 24, 2015.
22. *3D Video Games and Memory* on "Science Friday" with Ira Flatow. National Public Radio, December 25, 2015, 3:40PM EST ([link](#)).
23. "How Video Games Might Actually Help Our Brains," Gizmodo, with Kelsey Campbell-Dollaghan. Online. <http://gizmodo.com/how-video-games-might-actually-help-our-brains-1739037196>. December 26, 2015.
24. "Highly Superior Autobiographical memory: What Would it Mean to Remember Every Day of Your Life?." Live-Audience Discussion. <https://www.youtube.com/watch?v=qxpqqA6E7u0>. March 13, 2016.
25. "Mind Boggling," 60 Minutes Australia, with Grace Tobin & Allison Langdon. TV/Film. <http://www.9jumpin.com.au/show/60minutes/stories/2016/mind-boggling/>. July 31, 2016.
26. "Old Brains, New Tricks" *Old Brains, New Tricks*. Sunday Assembly, Live-audience discussion. Los Angeles, CA. <https://www.youtube.com/watch?v=3YcB40X328g>
27. "UC Irvine to debut brain research center with advanced MRI machine" by Bradley Zint, Los Angeles Times, September 21, 2017
28. *Your Brain on Tech*. Season 2 Mind Field, YouTube. December 6, 2017. <https://www.youtube.com/watch?v=1RHsAUyFCAM&t=5s>
29. *The Psychedelic Experience*. Season 2 Mind Field, YouTube. December 6, 2017. <https://www.youtube.com/watch?v=U3lWVLuc6CE>
30. *Neuroscience: Memory, Lie, and Recognition Detection*, Federal Judicial Center. February 7, 2019. <https://www.fjc.gov/content/332643/neuroscience-memory-lie-and-recognition-detection>
31. "Need a boost of creativity? Pay Minecraft, researchers find." by Sebastian Echeverri, July 25, 2019. The Philadelphia Inquirer. <https://www.inquirer.com/health/minecraft-creativity-video-games-20190725.html>
32. "Scientific seminars equip judges to counter opioid crisis" by Adam Cohen. July 26, 2019. Science Magazine.
33. "Unforgettable: How Blockchain Will Fundamentally Change the Human Experience" by Christina Comben, June 18, 2020. Coin Telegraph; <https://cointelegraph.com/magazine/2020/06/18/unforgettable-blockchain-human-experience>
34. "Using Environmental Enrichment to Improve Memory as we Age". Somang Society, YouTube. July 27, 2020. <https://www.youtube.com/watch?v=N4pYFXHnZNE>