

Daphna Shohamy, PhD

Department of Psychology

Columbia University, New York

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Blue text indicates post-tenure

POSITIONS

2007–2013	Assistant Professor, Columbia University, Psychology
2013–2018	Associate Professor, Columbia University, Psychology
2013–2018	Associate Professor, Columbia University, Zuckerman Mind, Brain, Behavior Institute
2018–Present	Professor, Columbia University, Psychology
2018–Present	Professor, Columbia University, Zuckerman Mind, Brain, Behavior Institute

EDUCATION & TRAINING

2004–2007	Postdoctoral Research Fellow, Department of Psychology, Stanford University
1997–2003	Ph.D., Rutgers University, Center for Neuroscience; Dissertation: <i>The Role of the Basal Ganglia in Learning and Memory: Evidence from Parkinson's Disease</i> ; Advisor: Mark A. Gluck
1992–1996	B.A., Tel-Aviv University; Double major in Psychology and Humanities

AWARDS & HONORS

2017	Elected Member, Dana Foundation
2017	Elected Member, International Neuropsychological Society
2016	McKnight Foundation, Memory and Cognitive Disorders Award
2014	Young Investigator Award, Cognitive Neuroscience Society
2013	Young Investigator Award, Society for Neuroeconomics
2012	Lenfest Distinguished Faculty Award, Columbia University
2011	Janet Spence Award for Transformative Early Career Contributions, APS
2010	National Science Foundation Career Development Award
2008	Young Investigator Award, National Alliance for Research on Schizophrenia and Depression
2004	Postdoctoral Individual National Research Service Award; NIMH
2003	Dean's Dissertation Award for Best Dissertation, Rutgers University
1997	Lehrman Fellowship for Academic Excellence
1996	Lehrman Fellowship for Academic Excellence

RESEARCH SUPPORT

Current funding

2017-2020	Understanding How Curiosity Drives Learning Templeton Foundation, Science of Virtue Award, PI of multi-center project \$1,900,000 Total
2017-2020	Mechanisms of Decision Making in Anorexia Nervosa: A Computational Psychiatry Approach Klarman Foundation Research Grant \$700,000 Total
2017-2019	Beholder's Share by Focusing on Brain Mechanisms in Response to Art

- 2016-2019 Dana Foundation, Co-PI (with E. Kandel)
\$100,000
How Episodic Memory Guides Decisions: Neural Mechanisms and Implications for Memory Loss
McKnight Foundation Memory and Cognitive Disorders Award, PI
\$300,000 Total
- 2016-2018 Zuckerman Public Outreach
Dana Foundation, Co-PI (with Kandel)
\$150,000 Total
- 2016-2017 Understanding the Effects of Aging on Curiosity and Learning: Neural and Cognitive Mechanisms, PI
Columbia Aging Center Faculty Research Fellowship
\$60,000
- 2015-2019 Neural Mechanisms of Food Choice in Anorexia Nervosa
NIH/NIMH R01, Co-PI (with Steinglass)
\$1,000,000 Total Direct
- 2014-2019 Computational and Neural Mechanisms of Memory-Guided Decisions
NIH/NIDA R01, Co-PI (with Daw)
\$1,250,000 Total Direct

Completed funding

- 2014-2016 A Role of Dopamine in Prospection
Templeton Foundation, Science of Prospection Award, Co-PI (w Foerde)
\$210,000 Total
- 2011–2015 Goals vs. Habits in the Human Brain: Cognitive and Computational Mechanisms
NIH – R01, PI
\$1,558,000 Total
- 2010–2015 Integrating Neuroimaging and Patient Studies of Learning and Decision Making
NSF Career Development Award, PI
\$900,000 Total
- 2009–2013 Investigating Placebo Effects in Parkinson’s Disease with Functional MRI
Michael J. Fox Foundation, Co-PI (w Wager)
\$330,000 Total
- 2009–2014 Learning to Avoid Pain: Computational Mechanisms and Application to Methamphetamine
NIH/NIDA, Co-PI and PI of Subcontract (PI: Wager)
\$1,972,000 Total; Subcontract: \$167,220
- 2009–2011 Using fMRI to Measure Negative Symptoms in Schizophrenia
NIH/NIMH, Co-PI (PI: Smith)
\$1,000,000 Total
- 2009–2010 Neural Systems of Learning and Memory in Addiction
NIH/NIDA, PI
\$250,000 Total
- 2009-2010 Neural Systems of Learning and Memory in Addiction
NIH/NIDA, PI

	\$250,000 Total
2008-2010	The Cognitive Neuroscience of Learning and Motivation in Schizophrenia: Combining fMRI and Patient Studies; NARSAD Young Investigator Award \$60,000 Total
2007-2011	Neurobiological Mechanisms Supporting Incremental and Episodic Learning NIH/NIMH, Co-I (PI: Wagner)
2004-2007	Neural Interactions in Incremental and Episodic Memory NIH/NIMH NRSA, PI
2004-2008	Feedback Learning and L-Dopa in Parkinson's Disease NIH/NIMH, Co-I (PI: Gluck)
2003-2006	Dissociating Medial Temporal Lobe and Basal Ganglia Contributions to Category Learning NSF, Co-I, (PIs: Gluck, Poldrack)
2000-2003	Behavioral and Computational Studies of Dopamine Dysfunction and Learning: Implications for Parkinson's disease and Schizophrenia Lowenstein Foundation, Co-I (PI: Gluck)

Funding and awards to trainees

National Science Foundation Graduate Research Fellowship Award (Jonathan Nicholas, 2017)
NIH National Research Service Award, Postdoctoral Training Fellowship, T32 (Daniel Kimmel, 2017)
National Science Foundation Graduate SBE Postdoctoral Research Fellowship (Akram Bakkour, 2016)
NIH National Research Service Award, Predoctoral Training Fellowship, F31 (Raphael Gerraty, 2016)
Columbia University Presidential Scholars in Society and Neuroscience Seed Grant (Celia Durkin, 2016)
National Science Foundation Graduate Research Fellowship Award (Ellen Tedeschi, 2015)
National Science Foundation Graduate Research, Honorable mention (Erin K. Braun, 2013)
National Science Foundation Graduate Research, Honorable mention (Raphael Gerraty, 2013)
Canadian Institute for Health Research Fellowship (Katherine Duncan, 2013)
NIH/NIMH T32 Postdoctoral Fellowship (Suzanne Wood, 2012)
National Science Foundation Graduate Research Fellowship Award (Juliet Davidow, 2011)
NIH/NINDS Postdoctoral National Research Service Award (Karin Foerde, 2009)

PUBLICATIONS [66 total]

*Note: last authorship indicates senior authorship. Access publications at:
shohamylab.zuckermaninstitute.columbia.edu/content/publications*

Original Research Articles

1. [Gerraty, R.T., Davidow, J.D., Foerde, K., Galvan, A., Bassett, D.S., & Shohamy, D. \(In Press\). Dynamic flexibility in striatal-cortical circuits supports reinforcement learning. *Journal of Neuroscience*.](#)
2. [Duncan, K.D., Doll, B.B., Daw, N.D., & Shohamy, D. \(In Press\). More than the sum of its parts: A role for the hippocampus in configural reinforcement learning. *Neuron*.](#)

3. Foerde, K., Gianini, L., Wang, Y., Wu, P., **Shohamy, D.**, Walsh, B. T., & Steinglass, J. E. (2018). Assessment of test-retest reliability of a food choice task among healthy individuals. *Appetite*, 123, 352-356.
4. Bornstein, A.M., Khaw, M.W., **Shohamy, D.**, & Daw, N.D. (2017). Reminders of past choices bias decisions for reward in humans. *Nature Communications*, 8, 15958.
5. Duncan, K.D., **Shohamy, D.** (2016). Memory states influence value-based decisions. *Journal of Experimental Psychology: General*, 145(11),1420-1426.
6. Davidow, J. Y., Foerde, K., Galván, A., & **Shohamy, D.** (2016). An upside to reward sensitivity: The hippocampus supports enhanced reinforcement learning in adolescence. *Neuron*, 92(1), 93-99.
7. Reinen, J. M., Van Snellenberg, J. X., Horga, G., Abi-Dargham, A., Daw, N. D., & **Shohamy, D.** (2016). Motivational context modulates prediction error responses in schizophrenia. *Schizophrenia Bulletin*, 42(6), 1467-1475.
8. Van Snellenberg, J. X., Girgis, R. R., Horga, G., van de Giessen, E., Slifstein, M., Ojeil, N., Weinstein, J.J., Moore, H., Lieberman, J.A., **Shohamy, D.** & Smith, E. E. (2016). Mechanisms of working memory impairment in Schizophrenia. *Biological Psychiatry*, 80(8), 617-626.
9. Zaki, J., Kallman, S., Wimmer, G. E., Ochsner, K., & **Shohamy, D.** (2016). Social cognition as reinforcement learning: feedback modulates emotion inference. *Journal of Cognitive Neuroscience*, 28(9), 1270-1282.
10. Foerde, K., Figner, B., Doll, B. B., Woyke, I. C., Braun, E. K., Weber, E. U., & **Shohamy, D.** (2016). Dopamine modulation of intertemporal decision-making: Evidence from Parkinson disease. *Journal of Cognitive Neuroscience*, 28(5), 657-667.
11. Marvin, C. B., & **Shohamy, D.** (2016). Curiosity and reward: Valence predicts choice and information prediction errors enhance learning. *Journal of Experimental Psychology: General*, 145(3), 266.
12. Sharp, M. E., Foerde, K., Daw, N. D., & **Shohamy, D.** (2015). Dopamine selectively remediates' model-based reward learning: A computational approach. *Brain*, 139(2), 355-364.
13. Foerde, K., Steinglass, J. E., **Shohamy, D.**, & Walsh, B. T. (2015). Neural mechanisms supporting maladaptive food choices in anorexia nervosa. *Nature neuroscience*, 18(11), 1571.
14. Doll, B. B., Duncan, K. D., Simon, D. A., **Shohamy, D.**, & Daw, N. D. (2015). Model-based choices involve prospective neural activity. *Nature Neuroscience*, 18, 767-772.
15. Steinglass, J., Foerde, K., Kostro, K., **Shohamy, D.**, & Walsh, B. T. (2015). Restrictive food intake as a choice—A paradigm for study. *International Journal of Eating Disorders*, 48(1), 59-66.

16. Schmidt, L., Braun, E. K., Wager, T., & **Shohamy, D.** (2014) Mind matters: Placebo enhances reward learning in Parkinson's disease. *Nature Neuroscience*, 17(12), 1793-1797.
17. Roy, M., **Shohamy, D.**, Daw, N.D., Jepma, M., Wimmer, G.E., & Wager, T. (2014). Representation of aversive prediction errors in the human periaqueductal grey. *Nature Neuroscience*, 17(11), 1607-1612.
18. Wimmer, G. E. Braun, E.K., Daw, N.D., & **Shohamy, D.** (2014). Episodic memory encoding interferes with reward learning and decreases striatal prediction errors. *Journal of Neuroscience*, 34(45), 14901-14912.
19. Gerraty, R.*, Davidow, J*, Wimmer, G. E., Kahn, I., & **Shohamy, D.** (2014). Transfer of learning related to intrinsic connectivity between hippocampus, ventromedial prefrontal cortex, and large-scale networks. *The Journal of Neuroscience*, 34(34), 11297-11303.
20. Van Snellenberg, J. X., Slifstein, M., Read, C., Weber, J., Thompson, J. L., Wager, T. D., **Shohamy, D.**, Abi-Dargham, A., & Smith, E. E. (2014). Dynamic shifts in brain network activation during supracapacity working memory task performance. *Human brain mapping*, 36(4), 1245-1264.
21. Insel, C., Reinen, J., Weber, J., Wager, T. D., Jarskog, L. F., **Shohamy, D.**, & Smith, E. E. (2014). Antipsychotic dose modulates behavioral and neural responses to feedback during reinforcement learning in schizophrenia. *Cognitive, Affective, & Behavioral Neuroscience*, 14(1), 189-201.
22. Reinen, J., Smith, E. E., Insel, C., Kribs, R., **Shohamy, D.**, Wager, T. D., & Jarskog, L. F. (2014). Patients with schizophrenia are impaired when learning in the context of pursuing rewards. *Schizophrenia research*, 152(1), 309.
23. Foerde, K., Race, E., Verfaellie, M., & **Shohamy, D.** (2013). A role for the medial temporal lobe in incremental feedback-driven learning: Evidence from amnesia. *Journal of Neuroscience*, 33:5698-704.
24. Kahn, I., & **Shohamy, D.** (2013). Intrinsic connectivity between the hippocampus, nucleus accumbens, and ventral tegmental area in humans. *Hippocampus*, 23(3), 187-192.
25. Wimmer, G.E. & **Shohamy, D.** (2012). Preference by association: How memory mechanisms in the hippocampus bias decisions. *Science*, 338: 270-273.
26. Foerde, K., Braun, E.K. & **Shohamy, D.** (2012). A tradeoff between feedback-based learning and episodic memory for feedback events: Evidence from Parkinson's disease. *Neurodegenerative Disorders*. 11:93-101.

27. Wimmer, G.E., Daw, N.D. & **Shohamy, D.** (2012). Generalization of value in reinforcement learning by humans. *European Journal of Neuroscience*, Special Issue: Beyond Simple Reinforcement Learning. 35(7), 1092-1104.
28. Ivleva, E., **Shohamy, D.**, Mihalakos, P., Morris, D.W., Carmody, T. & Tamminga, C.A. (2012). Memory generalization is selectively altered in the psychosis dimension. *Schizophrenia Research*, 138(1), 74-80.
29. Foerde, K. & **Shohamy, D.** (2011). Feedback timing modulates brain systems for learning in humans. *Journal of Neuroscience*, 31(37), 13157-13167.
30. Wimmer, G.E. & **Shohamy, D.** (2011). The striatum and beyond: Hippocampal contributions to decision making. In M. Delgado, E.A. Phelps, & T.W. Robbins (Eds.), *Attention & Performance XXII* (pp. 281-309). Oxford: Oxford University Press.
31. Sadeh, T., **Shohamy, D.**, Levy, D.R., Reggev, N., & Maril, A. (2011). Cooperation between the hippocampus and the striatum during episodic encoding. *Journal of Cognitive Neuroscience*, 23(7), 1597-1608.
32. **Shohamy, D.** & Adcock, R.A. (2010). Dopamine and adaptive memory. *Trends in Cognitive Science*, 14(10), 464-472.
33. **Shohamy, D.**, Mihalakos, P., Chin, R., Thomas, B., Wagner, A.D., & Tamminga, C. (2010). Learning and generalization in schizophrenia: Effects of disease and antipsychotic drug treatment. *Biological Psychiatry*, 67(10), 926-932.
34. Djonlagic, I., Rosenfeld, A., **Shohamy, D.**, Myers, C.E., Gluck, M.A., & Stickgold, R. (2009). Sleep enhances category learning. *Learning and Memory*, 16(12), 751-755.
35. Meeter, M., **Shohamy, D.**, & Myers, C.E. (2009). Acquired equivalence changes stimulus representations. *Journal of Experimental Analysis of Behavior*, 91(1), 127-141.
36. **Shohamy, D.**, Myers, C.E., Hopkins, R.O., & Gluck, M.A. (2009). Distinct hippocampal and basal ganglia contributions to probabilistic learning and reversal. *Journal of Cognitive Neuroscience*, 21(9), 1821-1833.
37. **Shohamy, D.** & Wagner, A.D. (2008). Integrating memories in the human brain: Hippocampal midbrain encoding of overlapping events. *Neuron*, 60(2), 378-389.
38. Daw, N.D. & **Shohamy, D.** (2008). The cognitive neuroscience of motivation and learning. *Social Cognition*, Special Issue: Cognitive Motivation and Motivated Cognition, 26(5), 593-620.
39. Vadhan, N.P., Myers, C.E., Rubin, E., **Shohamy, D.**, Foltin, R.W., & Gluck, M.A. (2008). Stimulus-response learning in long-term cocaine users: Acquired equivalence and probabilistic category learning. *Drug and Alcohol Dependence*, 93(1-2), 155-162.

40. Nagy, H., Keri, S., Meyers, C.E., Benedek, G., **Shohamy, D.** & Gluck, M.A. (2007). Cognitive sequence learning in Parkinson's disease and amnesic mild cognitive impairment: Dissociation between sequential and non-sequential learning of associations. *Neuropsychologia*, 45(7), 1386-1392.
41. **Shohamy, D.**, Myers, C.E., Geghman, K.D., Sage, J., & Gluck, M.A. (2006). L-Dopa impairs learning, but spares generalization, in Parkinson's disease. *Neuropsychologia*, 44(5), 774-784.
42. Meeter, M., Myers, C.E., **Shohamy, D.**, Hopkins, R.O., & Gluck, M.A. (2006). Strategies in probabilistic categorization: Results from a new way of analyzing performance. *Learning & Memory*, 13(2), 230-239.
43. **Shohamy, D.**, Myers, C.E., Grossman, S., Sage, J., & Gluck, M.A. (2005). The role of dopamine in cognitive sequence learning: Evidence from Parkinson's disease. *Behavioral Brain Research*, 156(2), 191-199.
44. Shohamy, D., Myers, C.E., Grossman, S., Sage, J., Gluck, M.A., & Poldrack, R.A. (2004). Cortico-striatal contributions to feedback-based learning: Converging data from neuroimaging and neuropsychology. *Brain*, 127(Pt 4), 851-859.
45. Hopkins, R.O., Myers, C.E., **Shohamy, D.**, Grossman, S., & Gluck, M.A. (2004). Impaired probabilistic category learning in hypoxic subjects with hippocampal damage. *Neuropsychologia*, 42(4), 524-535.
46. **Shohamy, D.**, Myers, C.E., Onlaor, S., & Gluck, M.A. (2004). Role of the basal ganglia in category learning: How do patients with Parkinson's disease learn? *Behavioral Neuroscience*, 118(4), 676-686.
47. Aron, A.R., **Shohamy, D.**, Clark, J., Myers, C.E., Gluck, M.A., & Poldrack, R.A. (2004). Human midbrain sensitivity to cognitive feedback and uncertainty during classification learning. *Journal of Neurophysiology*, 92(2), 1144-1152.
48. Myers, C.E., **Shohamy, D.**, Gluck, M.A., Grossman, S., Onlaor, S., & Kapur, N. (2003). Dissociating medial temporal and basal ganglia memory systems with a latent learning task. *Neuropsychologia*, 41(14), 1919-1928.
49. Myers, C.E., **Shohamy, D.**, Gluck, M.A., Grossman, S., Kluger, A., Ferris, S., Golomb, J., Schnirman, G., & Schwartz, R. (2003). Dissociating hippocampal versus basal ganglia contributions to learning and transfer. *Journal of Cognitive Neuroscience*, 15(2), 185-193.
50. Gluck, M.A., **Shohamy, D.**, & Myers, C.E. (2002). How do people solve the "Weather Prediction" task? Individual variability in strategies for probabilistic category learning. *Learning and Memory*, 9(6), 408-418.

51. Poldrack, R.A., Clark, J., Pare-Blagoev, E.J., **Shohamy, D.**, Creso Moyano, J., Myers, C., & Gluck, M.A. (2001). Interactive memory systems in the human brain. *Nature*, 414(6863), 546-550.
52. **Shohamy, D.**, Allen, M.T., & Gluck, M.A. (2000). Dissociating entorhinal and hippocampal involvement in latent inhibition. *Behavioral Neuroscience*, 114(5), 867-874.

Commentaries, invited reviews, and book chapters

53. Shadlen, M. & **Shohamy, D.** (2016). Decision making and sequential sampling from memory. *Neuron*, 90(5), 927-939.
54. **Shohamy, D.**, & Daw, N. D. (2015). Integrating memories to guide decisions. *Current Opinion in Behavioral Sciences*, 5, 85-90.
55. Sharp, M., Foerde, K., Daw, N., & **Shohamy, D.** (2015). Learning processes in Parkinson's disease and healthy aging (I3-5C). *Neurology*, 84(14 Supplement), P6-063.
56. Doll, B. B., **Shohamy, D.**, & Daw, N. D. (2014). Multiple memory systems as substrates for multiple decision systems. *Neurobiology of learning and memory*, 117, 4-13.
57. **Shohamy, D.** & Turk-Browne, N. Mechanisms for widespread hippocampal involvement in cognition. (2013). *Journal of Experimental Psychology: General*. Commentary and preface to special section on *Dialogues with Neuroscience*, 142(4), 1159-1170.
58. **Shohamy, D.** & Daw, N.D. Habits and reinforcement learning. Chapter in M. Gazzaniga and R. Mangun, ed., *The Cognitive Neurosciences V*, Cambridge: MIT Press. In Press.
59. Wimmer, G.E. & **Shohamy, D.** Dopamine and the cost of aging. (2013). *Nature Neuroscience*. 16(5):519-521.
60. Roy, M., **Shohamy, D.**, & Wager, T.D. (2012). Ventromedial prefrontal-subcortical systems and the generation of affective meaning. *Trends in Cognitive Sciences*, 16(3), 147-156.
61. **Shohamy, D.** (2011). Learning and motivation in the human striatum. *Current Opinion in Neurobiology*, 21(3), 408-414.
62. Foerde, K. & **Shohamy, D.** (2011). The role of the basal ganglia in learning and memory: Insight from Parkinson's disease. *Neurobiology of Learning and Memory*, 96(4), 624-36.
63. Wilbrecht, L. & **Shohamy, D.** (2010). Neural circuits can bridge systems and cognitive neuroscience. *Frontiers in Human Neuroscience*, 3, 81.
64. **Shohamy, D.** & Wagner, A.D. (2009). Integrative encoding. *American Journal of Psychiatry*, 166(3), 284.
65. Preston, A.R., **Shohamy, D.**, Tamminga, C.A., & Wagner, A.D. (2005). Hippocampal function, declarative memory, and schizophrenia: anatomic and functional neuroimaging

considerations. *Current Neurology and Neuroscience Reports*, 5(4), 249-256.

66. **Shohamy, D.**, Myers, C.E., Kalanithi, J., & Gluck, M.A. (2008). Basal ganglia and dopamine contributions to probabilistic category learning. *Neuroscience and Biobehavioral Reviews*, 32(2), 219-236.
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INVITED SYMPOSIA AND TALKS

International and National Meetings

- 2018 The Society for Developmental Cognitive Neuroscience, FLUX Annual Meeting, Berlin, Germany, Invited Keynote Lecture
- 2018 "Brains & Behavior: Order & Disorder in the Nervous System", Cold Spring Harbor Symposium, New York
- 2018 SYNAPSY Conference on the Neurobiology of Mental Health, Geneva, Switzerland
- 2018 The Winter Brain Conference, Whistler, British Columbia, Invited Keynote Lecture (cancelled due to illness)
- 2017 Society for Neuroscience Special Lecture on Memory and Decision Making, Washington DC
- 2017 International Conference for Cognitive Neuroscience, Keynote Address, Amsterdam, Holland
- 2017 "Brainy Days in Jerusalem II", International neuroscience conference, Invited Address, Hebrew University, Israel
- 2017 NYU Memory meeting
- 2017 Computational and Systems Neuroscience Annual Conference, Invited Keynote Lecture
- 2017 Alpine Brain Imaging Meeting, Invited talk on How Memory Guides Exploration and Learning, Champéry, Switzerland
- 2016 Society for Neuroeconomics Annual Meeting, Invited talk on Memory and Decision Making, Berlin, Germany
- 2016 Annual International Symposium on Decision Neuroscience – "Memory, Value and Choice"
- 2016 The Neuroscience of Decision-Making Annual Meeting "Memory and value-based decisions", Montreal, CA
- 2016 Cognitive Neuroscience Society Invited Symposium – "Reactivating memories to guide decisions"
- 2016 ISAN- "How memory mechanisms in the hippocampus guide value-based decisions", Haifa University, Haifa, Israel.
- 2015 CRCNS Investigator meeting; "How episodic memory guides decisions: Computational and cognitive mechanisms", Seattle, WA.
- 2015 NYU-Duke Neuroeconomics Summer Institute, Shanghai, China
- 2015 International Neuropsychological Symposium, "Medial temporal lobe contributions to non-memory functions", Collioure, France
- 2015 FENS conference on "Bridging Neural Mechanisms and Cognition", Copenhagen, Denmark

- 2015 Computational and Systems Neuroscience (CoSyNe), Workshop on “Memory in action: The role(s) of the hippocampus in decisions for reward”, Salt Lake City, Utah.
- 2015 FENS Winter School, “The neuroscience of decision making”, Austria
- 2015 Symposium on the Science of Prospecion, Philadelphia, PA
- 2014 International Symposium on “Biology of Decision Making”, Paris, France
- 2014 Workshop on Neuroeconomics: Recent Advances and Future Directions, Erice, Italy
- 2014 International Meeting on *Memory and the Brain in Health and Disease*, Annual Baycrest Research Institute Neuroscience Conference, Toronto, Canada
- 2014 Workshop on *Neuroeconomics: Recent Advances and Future Directions*. Erice, Italy
- 2014 Cognitive Neuroscience Society Annual Meeting, Boston, MA. *Young Investigator Award recipient talk*.
- 2013 Symposium on *Learning, Memory and Value*, Society for Neuroscience, San Diego
- 2013 *Reinforcement Learning and Decision Making* 1st Annual Meeting, Princeton, NJ
- 2013 *Computational Psychiatry*, Miami, Florida
- 2013 International Meeting on *Prediction and Decision Making in the Brain*, Keio University, Kyoto, Japan
- 2013 Symposium on *Hippocampus and Model-Based Processing*, Eastern Psychological Association, New York
- 2012 Symposium on *Rewards, Habits and Learning: Towards an Integrative View of FrontoStriatal Function*, Columbia University (Organizer and Speaker
- 2012 Memory Disorders Research Society Annual Meeting, Symposium on *Learning About and Using Regularities to Guide Behavior*, Davis, CA (Chair and Speaker
- 2012 Pavlovian Society Annual Meeting, Jersey City, NJ
- 2012 Annual meeting of the Society for Philosophy and Psychology; Symposium on *Automatic vs. Controlled Processes in Motivation*, Boulder, CO
- 2011 Winter Conference on Brain Research, Keystone, CO. Symposium on *Investigations into the neural circuits mediating model-based learning about reward value versus identity*
- 2011 Memory Disorders Research Society Annual Meeting, Symposium on *Memory and Cognitive Dysfunction in Parkinson’s Disease*, Barcelona, Spain
- 2010 International Basal Ganglia Society Annual Meeting, NJ. Symposium on *cognitive functions of the basal ganglia*
- 2010 Cognitive Neuroscience Society Annual Meeting, Montreal, Canada. Symposium on *Dopamine and Adaptive Memory* (Chair and Speaker
- 2009 American Psychological Science Annual Meeting, San Francisco, CA. Symposium on *New Advances in Understanding Memory*
- 2008 Annual meeting of the Society of Personality and Social Psychology, Albuquerque, NM. Symposium on *Goal-Directed Learning Outside the Cartesian Theater*.
- 2005 International Conference on *Basal Ganglia, Dopamine and Learning: Integrating Computational and Clinical Perspectives*, Hebrew University, Israel

University Seminars and Small Meetings

- 2018 Stanford University, Department of Psychology Colloquium Series
- 2018 University of Toronto, Department of Psychology Colloquium, Toronto

- 2018 NIMBioS Working Group: Learning in Networks, Working Group, Knoxville, Tennessee
- 2017 Duke University, Center for Cognitive Neuroscience Colloquium, North Carolina
- 2017 Yale University, Cognitive Neuroscience Talk Series, Connecticut
- 2017 Cambridge University, Chaucer Club, Cognition and brain sciences unit, Cambridge, UK
- 2017 Harvard University, Department of Psychology Colloquium, Cambridge, MA
- 2017 NYU Memory meeting
- 2017 Symposium in Economics, Decision Making, and Neuroscience, Columbia University
- 2017 Geneva-Princeton Workshop on Learning, “Learning Structure in Uncertain Environments”, Geneva, Switzerland.

- 2016 Tel-Aviv University, Sagol Neuroscience Seminar Series, Israel
- 2016 University of Colorado, Boulder; Department of Psychology Colloquium
- 2016 Memory Disorders Research Society, Symposium in Memory and Decision Making (Chair and speaker).

- 2016 Whistler Scientific Workshop –“Brain networks for learning: connectivity, flexibility, and individual difference”, Whistler-Blackcomb, BC, Canada

- 2015 Washington University, Dept. of Psychology, Colloquium Series
- 2015 Zurich, Dept. of Economics, Neuroeconomics Talk Series
- 2014 Brain, Mind and Society Seminar Series, Caltech, CA
- 2014 Functional MRI Speaker Series, University of Michigan, MI
- 2013 Center for Memory and Brain, Boston University, MA
- 2013 Center for Cognitive Neuroscience, University of Pennsylvania, PA
- 2013 Department of Psychology, Yale University, NY
- 2013 Sackler Summer Course in Developmental Neuroscience, Cornell Medical School, NY
- 2013 Cognition in Huntington’s Disease, Princeton, NJ
- 2013 Functional Imaging Laboratory, UCL, London, UK
- 2013 Workshop on *Advances in Memory Systems*, NYU, NY
- 2013 Department of Psychology, University of Arizona, AZ
- 2013 Hebrew University Cognitive Science Talk Series, Jerusalem, Israel
- 2012 Social and Affective Neuroscience Talk Series, Princeton, NJ
- 2012 Symposium on *Statistics of the Mind*, Columbia University, NY
- 2012 Workshop on *The Striatum*, University College, London, UK
- 2012 Sackler Summer Course in Developmental Neuroscience, Cornell Medical School, NY
- 2011 Magnetic Resonance Research Center, Yale University, CT
- 2011 Neuroeconomics Talk Series, New York University, NY
- 2011 Rotman Research Institute, University of Toronto, Canada
- 2011 Krasnow Institute Talk Series, George Mason University
- 2011 Department of Psychiatry, Cornell University
- 2011 Department of Neurology, Division of Movement Disorders, Columbia University Medical Center

- 2011 Biopsychology Colloquium Series, TelAviv University, Israel
- 2010 Memory in Brain Talk Series, New York University, NY
- 2010 Center for Theoretical Neuroscience, Columbia University
- 2010 Neuroscience and Behavior Colloquium, Amherst University
- 2010 Workshop on *Dopamine and Learning*, Boston, MA
- 2010 Department of Psychology, Princeton University, NJ
- 2010 Department of Psychology, Rutgers University, NJ

- 2010 Center for Cognitive Neuroscience, Duke University, NC
- 2009 Department of Neuroscience, University of Texas, Southwestern
- 2009 Department of Psychology, New York University, NY
- 2009 Sackler Institute for Developmental Psychobiology, Cornell University
- 2009 Department of Psychiatry, Columbia University, NY
- 2009 Functional Imaging Lab, University College London, UK
- 2009 Neurobiology Seminar, Columbia University, NY
- 2009 Banbury Workshop on *Searching for Principles Underlying Memory in Biological Systems*, Cold Spring Harbor, NY
- 2008 International Symposium on *Attention & Performance: Decision Making*. Stowe, VT
- 2004 Cognitive Neuroscience of Category Learning workshop. NYC
- 2003 Workshop on *Dopamine and Memory: Integrating Computational and Empirical Approaches*, Rutgers University, NJ
- 2003 Department of Psychology, UCLA, CA
- 2002 Department of Psychology, Penn State University, PA
- 2000 Cognitive Neuroscience Lab, National Institute of Mental Health, Washington DC &

Public Outreach/Popular Press Coverage

- 2018 [The Rubin Museum “Brainwave” Series. A conversation with author Nicole Krauss.](#)
- 2018 [NYC Brain Bee for High School Students, Moderator](#)
- 2017 [Helix Center, New York City, “‘Fake’ Knowledge: Knowing and the Illusion of Knowing”](#)
- 2017 [“Our brains, our selves” Lecture for Middle School students at The School at Columbia](#)
- 2016 [World Science Festival, “My Society, My Self”, Salon](#)
- 2016 [World Science Festival, “My Neurons, My Self”, Main Stage](#)
- 2016 [WNYC “Note to Self” program with Manoush Zomorodi](#)
- 2016 [Stavros Niarkos Brain Highlight Lecture on “Learning and the Brain”](#)
- 2016 [Public performance, WNYC, Information Overload and the Brain](#)
- 2015 [TIME magazine online; featured program on our findings re decision making in Anorexia](#)
- 2015 [NY Times, featured news article on our findings re decision making in Anorexia](#)
- 2015 [Nature Podcast, featured interview on our findings re decision making in Anorexia](#)
- 2015 [Channel 10, Israeli TV, Series on Frontiers of Brain Science](#)
- 2014 [NYC Brain Bee for High School Students, Keynote Lecture](#)
- 2014 [Science Expo, Grades K-8, The School at Columbia University](#)
- 2013 [Public event on *The Future of Learning* organized by Columbia Business School Executive Education](#)
- 2013 [Learning and the Brain, Columbia University’s *Brain Series* for alumni and trustees, Carlyle Hotel, NYC](#)
- 2013 [Cognitive Neuroscience for Journalists, School of Journalism, Columbia University](#)
- 2013 [Dopamine, Learning and Motivation, lecture for educators and parents, in *Learning and the Brain* event Columbia University, NYC](#)
- 2013 [Los Angeles Times: *How our powerful memories can also bias our decisions* \(October 11\)](#)
- 2012 [Public Lecture on *How We Remember, Why We Forget, and Why It Matters*, University of Washington, Edwards Series, Seattle, WA](#)
- 2011 [Calhoun School of NYC, Workshop on *Neuroscience and Education*](#)
- 2010 [Cognitive Neuroscience for Journalists, School of Journalism, Columbia University](#)

COLUMBIA UNIVERSITY COMMITTEES/SERVICE

- 2017-present Vice Chair of Executive Committee, Zuckerman Mind, Brain, Behavior Institute
2015-present Executive Committee, Zuckerman Mind, Brain, Behavior Institute (A&S representative)
2014-2017 Acting Director of Cognitive Imaging, Human Imaging Core, Zuckerman Mind, Brain, Behavior Institute
2017-2018 Department of Psychology Cognitive Neuroscience Search Committee (Chair)
2017 Chair, Internal Academic Review Committee, Weatherhead Institute
2014-2016 Academic Review Committee, School of Arts & Sciences
2009-2018 Department of Psychology Search Committee
2010-present Department of Neuroscience Search Committee
2015-2018 Tenure Process and Review Committee for senior cognitive neuroscience hires (NK, LD, MC, JK)
- 2013 Faculty Search Committee, Dept. of Psychology
Brain Imaging Planning and Hiring Committee, Mind Brain Behavior Institute, Columbia University
Faculty Search Committee, Dept. of Neuroscience
Neurobiology and Behavior Graduate Program Mentor
- 2012 Graduate Admissions Committee, Dept. of Psychology
Faculty Search Committee, Dept. of Psychology
Colloquium Committee, Dept. of Psychology
Psychology Department Graduate Faculty Advice Panel – Getting a job
Psychology Department Graduate Faculty Advice Panel – Getting published
Brain Imaging Planning and Hiring Committee, Mind Brain Behavior Institute, Columbia University
Faculty Search Committee, Dept. of Neuroscience
Neurobiology and Behavior Graduate Program Mentor
- 2011 Graduate Admissions Committee, Dept. of Psychology
Colloquium Committee, Dept. of Psychology
Faculty Search Committee, Dept. of Neuroscience
Neurobiology and Behavior Graduate Program Mentor
- 2010 Graduate Admissions Committee, Dept. of Psychology
Faculty Search Committee, Dept. of Psychology
Colloquium Committee, Dept. of Psychology
Psychology Department Graduate Faculty Advice Panel – Women and minorities
Psychology Department Graduate Faculty Advice Panel – Getting your research funded
Neurobiology and Behavior Graduate Program Mentor
- 2009 Graduate Admissions Committee, Dept. of Psychology
Faculty Search Committee, Dept. of Psychology
Colloquium Committee, Dept. of Psychology
Neurobiology and Behavior Graduate Program Mentor
- 2008 Graduate Admissions Committee, Dept. of Psychology
Faculty Search Committee, Dept. of Psychology
Colloquium Committee, Dept. of Psychology
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PROFESSIONAL SERVICE

- 2018 – 2021 Review of University of Zurich Program in Neuroeconomics
2018 Board Member of two new journals (*Computational Psychiatry, Open Mind*)
2017 Working Group on Learning in Networks
2017 Cambridge Dissertation Defense Committee
2017-2016 Computational Cognitive Neuroscience, Founding Steering Committee
2016 INS Symposium Co-Organizer
2012-2013 Special Section Editor, Journal of Experimental Psychology: General, *Dialogues with Neuroscience* (with Nick Turk-Browne)
2010-2013 Board Member, Society for Neuroeconomics
2012 Symposium Organizer, Memory Disorders Research Society Annual Meeting
2012 Organizer of International Symposium on Rewards, *Learning and Habits: Towards an Integrated View of Frontostriatal Function*, Columbia University, NY
2010 Symposium Organizer, Cognitive Neuroscience Society Annual Meeting

Grant Reviews

- 2012 - present Reviewer for the Israeli Science Foundation
2011-present Reviewer for NSF
2012- present Reviewer for NIH

Ad Hoc Reviewer for Scientific Publications

Brain, Behavioral Neuroscience, Biological Psychiatry, Cerebral Cortex, Cognitive, Behavioral and Affective Neuroscience, *Frontiers in Neuroscience*, Hippocampus, *Journal of Cognitive Neuroscience*, *Journal of Neuroscience*, *Learning & Memory*, *Nature*, *Nature Neuroscience*, *Nature Communications*, *Nature Human Behavior*, *NeuroImage*, *Neuron*, *Neuropsychology*, *Neuropsychologia*, *PloS*, *PNAS*, *Science*

Professional Memberships

Cognitive Neuroscience Society, International Neuropsychological Society, Society for Neuroeconomics, Society for Neuroscience, Association for Psychological Science, Human Brain Mapping, Memory Disorders Research Society.

TEACHING

<i>Frontiers of Science</i>	2016-present
Honors Seminar, Columbia University	2013-present
Proseminar in Psychological Science, Columbia University	2013-present
Cognitive Neuroscience and the Media, Columbia University	2010-present
Learning and the Brain, Columbia University	2009-present
Mind, Brain and Behavior, Columbia University	2008-present
Methods and Issues in Cognitive Neuroscience, Columbia University	2008-2010

RESEARCH COLLABORATION

Zuckerman Mind, Brain, Behavior Institute

Dr. Michael Shadlen	Memory and decisions
Dr. Daniel Salzman	Learning a context

Dr. Rui Costa

Decision systems

Columbia University Medical Center (Psychiatry and Neurology)

Dr. Blair Simpson

Learning in anxiety disorders

Dr. Tim Walsh

Learning and affect in Anorexia Nervosa

Dr. Joanna Steinglass

Dr. Roy Alcalay

Cognitive function in Parkinson's disease

National and International

Dr. Danielle Bassett, U Penn

Network neuroscience and learning

Dr. Nathaniel Daw, Princeton

Computational models of learning and decision-making

Dr. Adriana Galvan, UCLA

Learning and motivation in adolescence

Dr. Itamar Kahn, Technion, Israel

Intrinsic brain networks and learning

Dr. Mieke Verfaillie, Boston U

Hippocampal amnesia, learning and reward

Dr. Tor Wager, U of Colorado

Learning, placebo, and dopamine

Dr. Bernd Weber, Bonn, Germany

Decision making in hippocampal lesioned patients

Dr. Bernd Figner, Amsterdam

Risk taking and decision making in Parkinson's disease

POST DOCTORAL FELLOWS AND STUDENTS

Post-doctoral Fellows

Akram Bakkour, Ph.D.

2015-present

Daniel Kimmel, M.D., Ph.D.

2015-present

Sharp, Madeleine, M.D.

2014-2016

Bradley Doll, Ph.D.

2011-2015 (Data Scientist)

Katherine Duncan, Ph.D.

2011-2015 (Tenure track at U of Toronto)

Liane Schmidt, Ph.D.

2010-2014 (Tenure track at INSERM, Paris)

Suzanne Wood, Ph.D.

2010-2014 (Lecturer in Discipline, University of Toronto)

Karin Foerde, Ph.D.

2007-2013 (Asst. Professor, Columbia University,
Psychiatry)

Ph.D. Students

Celia Durkin

Ph.D. expected 2022

Jonathan Nicholas

Ph.D. expected 2022

Ellen Tedeschi

Ph.D. expected 2020

Melina Tsitsiklis

Ph.D. expected 2019 (co-advised with Josh Jacobs)

Raphael Gerraty

Ph.D. expected 2018

Erin Kendall Braun

Ph.D. expected 2018

Rebecca Martin

Ph.D. received in 2016 (co-advised with Kevin Ochsner)

Seth Kallman

Ph.D. received in 2016 (co-advised with Kevin Ochsner)

Caroline Marvin

Ph.D. received in 2015 (co-advised with Carl Hart)

Katherine Thompson

Ph.D. received in 2014 (co-advised with Elke Weber)

Juliet Davidow

Ph.D. received in 2014 (postdoc at Harvard)

Jenna Reinen

Ph.D. received in 2014 (postdoc at Yale)

G. Elliott Wimmer

Ph.D. received in 2012 (researcher at FIL, London)

Graduate Student Dissertation Committees (from other labs/universities; in reverse chronological order)

Judy Xu	Dept. of Psychology, Columbia University
Zach Bucknoff	Dept. of Psychology, Columbia University
Seth Kallman	Dept. of Psychology, Columbia University
Rebecca Martin	Dept. of Psychology, Columbia University
Michelle Van Tiegham	Dept. of Psychology, Columbia University
Bilur Avlar	Dept. of Psychology, Columbia University
Brian Maniscalco	Dept. of Psychology, Columbia University
Maria Konnikova	Dept. of Psychology, Columbia University
Bryan Denny	Dept. of Psychology, Columbia University
Aaron Bornstein	NYU
Yuhua Guo	Cambridge University, UK
Katherine Thompson	Dept. of Psychology, Columbia University
George E. Wimmer	Dept. of Psychology, Columbia University
Lauren Atlas	Dept. of Psychology, Columbia University
David Hardisty	Dept. of Psychology, Columbia University
Dobrimir Rahnev	Dept. of Psychology, Columbia University
Sylvia Rodriguez	Dept. of Psychology, Columbia University
Steen Sehnert	Dept. of Psychology, Columbia University
Jared Van Snellenberg	Dept. of Psychology, Columbia University
Julie Spicer	Dept. of Psychology, Columbia University
Heather Van Volkinburg	Dept. of Psychology, Columbia University
Ellen Peck	Dept. of Neuroscience, Columbia University
Mattia Rigoti	Center for Theoretical Neuroscience, Columbia University
William Hinkle	Graduate Program in Neurobiology and Behavior, Columbia U
Rom Schrift	Graduate Program in Marketing, Columbia Business School
Gudrun Diermayr	Movement Science Program, Teacher's College

Undergraduate RA Students

Juan Guerrero	2017-present
Pamela van den Enden Uribe	2017-present
Deepti Varathan	2017-present
Serena Wu	2017-present
Alice Xue	2017-present
Rachel Zuckerman	2017-present
Eileen Hartnett	2016-present
Kate Stanley	2016-2017
Sean Raymond	2015-2016
Hezi Sasson	2015-2016
Hanna Savitz	2015-2016
Christina Galese	2015-2016
Christina Reale	2015-2016
Amanda Buch	2015-2016
Kimberly Sanchez	2015-present

Sadie Bennett	2015-present
Emily Lang	2015-present
Lucy Owen	2014-2016
Camilla van Geen	2013-present
Adam Litt	2012-2013
Alex Chang	2012-2013
Kelly Braga	2012-2013
Celia Durkin	2012-2015
Sam Meyer	2012-2013
Peter Myers	2012-2013
Anuya Patil	2012-2013
Janelle Liu	2011-2012
Ashley Duenas	2011-2012
Ali Ehteshami	2011-2012
Myoungsun Namkung	2011-2012
Maggie Close	2011-2012
Julianne Park	2011-2012
Nina Rouhani	2011-2014
Sergio Zenisek	2011-2012
Ruthy Sher	2011-2012
Blaine Harper	2010-2011
Ashley Lee	2010-2012
Karen Abraham	2010-2011
Katie Insel	2010-2013
Sheryl Kohanzadeh	2010-2011
Christina Read	2010-2012
Jamie Chiel	2010-2011
Nate Klooster	2010-2011
Michael Gellman	2010-2011
Maxwell Bertolero	2010-2011
Erin Kendall Braun	2009-2012
Sarah Edery	2009-2010
Carly Solon	2009-2010
Elizabeth LaMarca	2009-2010
Juan Deliz	2009-2012
Eva Alba	2009-2012
Keva Garg	2008-2011
Caroline Marvin	2008-2009
Kate Johnson	2008-2010
Melanie Pincus	2008-2011
Michael Szeto	2008-2010
Barbara Graniello	2008-2009
Rob Kribs	2008-2011
Nathan Clement	2007-2010