LAURA A LIBBY

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ACADEMIC HISTORY

University of California, San Francisco 2014–present
Research Collaborator, Department of Radiology
PI: Srikantan S Nagarajan

University of California, Davis 2014–present
Postdoctoral Researcher, Center for Neuroscience
PI: Charan Ranganath

University of California, Davis 2009–2014
PhD in Psychology – Perception, Cognition, and Cognitive Neuroscience Area
Advisors: Charan Ranganath, J Daniel Ragland
Funding Source: NSF Graduate Research Fellowship Program

University of California, Davis 2009–2011
MA in Psychology

National Institute of Mental Health 2007–2009
Post-Baccalaureate Research Fellow
PIs: Joseph H Callicott, Daniel R Weinberger
Funding Source: NIH Intramural Research Training Award Program

Cornell University 2003–2007
BS in Human Development with Honors in Research
Advisor: Barbara M Koslowski
Funding Source: Marjorie A Corwin Undergraduate Research Fellowship

AWARDS & HONORS

2016	Finalist, AP Giannini Foundation Postdoctoral Fellowship *(Decision pending)*
2011–2014	NSF Graduate Research Fellowship Program (GRFP) Award
2014	Dukes Fund Travel Award, UC Davis
2013	NIMH Summer Institute in Cognitive Neuroscience Fellowship, Tahoe Session

2011	NIMH Summer Institute in Cognitive Neuroscience Fellowship
2011	Gazzaniga Prize for Cognitive Neuroscience Best Trainee Poster, UC Davis
2010	Honorable Mention, Graduate Research Fellowship Program, NSF
2007–2009	Post-Baccalaureate Intramural Research Training Award (IRTA), NIMH
2007	Outstanding Senior in the College of Human Ecology, Cornell University
2006–2007	Departmental Research Honors in Human Development, Cornell University
2006	Marjorie A Corwin Undergraduate Research Fellowship, Cornell University

PEER-REVIEWED PUBLICATIONS

Wang S-F, Ritchey M, **Libby LA**, Ranganath C (2016). Functional connectivity based parcellation of the human medial temporal lobe. *Neurobiology of Learning and Memory.*

Cook P, Reichmuth C, Rouse A, **Libby LA**, Dennison S, Stuppino J, Kruse K, Bloom J, Carmichael O, Van Bonn W, Gulland F, Ranganath C (2015). The neurobehavioral effects of naturally occurring domoic acid toxicosis in wild California sea lions. *Science*.

Maass A*, Berron D*, **Libby LA**, Ranganath C*, Duzel E* (2015). Functional subdivisions of the human entorhinal cortex. *eLife*, 2015;4:e06426. *Denotes equal first and senior author contributions.

Yushkevich PA, Amaral RSC, Augustinack JC, …, **Libby LA**, …, Zeineh MM (2015). A quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal gyrus subregions in in vivo MRI: Is a unified protocol feasible? *Neuroimage*, 111, 526-41.

Libby LA, Hannula DE, Ranganath C (2014). Medial temporal lobe coding of item and spatial information during relational binding in working memory. *The Journal of Neuroscience*, 34, 14233-42.

Copara MS, Hassan AS, Kyle CT, **Libby LA**, Ranganath C, Ekstrom AD (2014). Complimentary roles of human hippocampal subregions during retrieval of spatiotemporal context. *The Journal of Neuroscience*, 34, 6834-6842.

Hannula DE, **Libby LA**, Yonelinas AP, Ranganath C (2013). Medial temporal lobe contributions to cued recall of items and context. *Neuropsychologia*, 51, 2322-2332.

Libby LA, Yonelinas AP, Ranganath C, Ragland JD (2013). Recollection and familiarity in schizophrenia: A computational review. *Biological Psychiatry*, 73, 944-950.

Libby LA, Ekstrom AD, Ragland JD, Ranganath C (2012). Differential connectivity of perirhinal and parahippocampal cortices within human hippocampal subregions revealed by high-resolution functional imaging. *The Journal of Neuroscience*, 32, 6550-6560.

Libby LA, Ragland JD, Ranganath C (Under revision). The hippocampus generalizes across memories that share item and context information.

Koslowski BM, O'Connor K, **Libby LA**, Golub N (Under review). Not all anomalies are created equal: Strong and weak anomalies function differently.

Libby LA, Ranganath C, Yonelinas AP, Ragland JD (In preparation). Neural correlates of successful recollection in schizophrenia.

Roberts BM, **Libby LA**, Ranganath C (In preparation). Brain activity related to the temporal order and precision of working memory representations.

Ritchey M, **Libby LA**, Ranganath C (In preparation). Applications of fMRI pattern information analysis to the study of memory.

TEXTBOOK CHAPTERS

Ritchey M, **Libby LA**, Ranganath C (2015). Cortico-hippocampal systems involved in memory and cognition: The PMAT framework. In S O'Mara & M Tsanov (Eds), *The Connected Hippocampus*. In V Walsh (Series Ed), *Progress in Brain Research*. Elsevier.

Arzi A, Cox JC, D'Souza D, …, **Libby LA**, …, Wood S (2014). The significance of cognitive neuroscience: Findings, applications, and challenges. In MS Gazzaniga & GR Mangun (Eds), *The Cognitive Neurosciences* (5th ed). Cambridge, MA: The MIT Press.

Ranganath C, **Libby LA**, Wong L (2012). Human learning and memory. In K Frankish & W Ramsey (Eds), *The Cambridge Handbook of Cognitive Science.* Cambridge University Press.

Libby LA, Ragland JD (2012). fMRI as a measure of cognition-related brain circuitry in schizophrenia. In JW Dalley & CS Carter (Eds), *Brain Imaging in Behavioral Neuroscience.* In MA Geyer, BA Ellenbroek, & CA Marsden (Series Eds), *Current Topics in Behavioral Neurosciences.* Springer Science.

INVITED TALKS

Libby LA (2013, December). Brain networks supporting item and context processing. Young Scientist Lecture presented at Otto-von-Guericke-Universität Magdeburg, Germany.

Libby LA (2013, June). Univariate and multivariate fMRI techniques. Seminar presented at the University of Wisconsin, Milwaukee.

CONFERENCE TALKS

Libby LA, Ranganath C (2015, October). Hippocampal and cortical organization of memories for items and context. Presented at the annual meeting of the Society for Neuroscience in Chicago, IL.

Libby LA, Inhoff MC, Love BC, Ranganath C (2015, May). Learning contextual significance in the medial temporal lobe. Presented at the annual Context and Episodic Memory Symposium in Philadelpha, PA.

Libby LA, Ranganath C, Varadarajan AJ, Ragland JD (2011, November). Functional connectivity of the perirhinal and parahippocampal cortices in schizophrenia. Presented at the annual meeting of the Society for Neuroscience in Washington, DC.

Libby LA (2011, April). Dissociating connections of PRC and PHC within the human hippocampus using high-resolution fMRI and functional connectivity. Presented at the annual Psychology Department Conference at the University of California, Davis.

Libby LA (2010, August). Unitization effects on episodic memory in healthy individuals and patients with schizophrenia. Presented at the annual Bay Area Memory Meeting in Stanford, CA.

POSTER PRESENTATIONS

Maass A, Berron D, **Libby LA**, Ranganath C, and Duzel E (2015, March). Functional subdivisions of the human entorhinal cortex. Presented at the annual meeting of the Cognitive Neuroscience Society in San Francisco, CA.

Wang SF, Ritchey M, **Libby LA**, and Ranganath C (2015, March). Functional connectivity-based parcellation of the human medial temporal lobe. Presented at the annual meeting of the Cognitive Neuroscience Society in San Francisco, CA.

Libby LA, Inhoff MC, Love BC, and Ranganath C (2014, November). Learning contextual significance in the medial temporal lobe. Presented at the annual meeting of the Society for Neuroscience in Washington, DC.

Inhoff MC, **Libby LA**, Love BC, and Ranganath C (2014, November). Contextual significance shapes item representations in the medial temporal lobe. To be presented at the annual meeting of the Society for Neuroscience in Washington, DC.

Cook P, Rouse A, **Libby LA**, Reichmuth C, Van Bonn W, Ranganath C, and Gulland F (2014, September). Disrupted hippocampal connectivity in wild sea lions exposed to an algal neurotoxin. Presented at the Fourth Biennial Conference on Resting State/Brain Connectivity in Cambridge, MA.

Libby LA, Ranganath C (2013, November). Memory for items in context: Multivoxel pattern similarity approaches. Presented at the annual meeting of the Society for Neuroscience in San Deigo, CA.

Libby LA, Yonelinas AP, Ranganath C, Lesh T, Niendam T, Yoon J, Solomon M, Carter CS, Ragland JD (2013, April). Neural correlates of recollection and familiarity deficits in schizophrenia. Presented at the annual meeting of the International Society on Schizophrenia Research in Boca Raton, FL.

Libby LA, Hannula DE, Kelly LL, Ranganath C (2012, October). Representation of object sets and spatial configurations in the human medial temporal lobes during working memory task performance. Presented at the annual meeting of the Society for Neuroscience in New Orleans, LA.

Libby LA, Ragland JD, Montchal ME, Varadarajan AJ, Ranganath C (2012, April). Functional connectivity of the perirhinal and parahippocampal cortices in schizophrenia. Presented at the annual meeting of the Society of Biological Psychiatry in Philadelphia, PA.

Copara M, Zhang H, **Libby LA**, Jackson J, Zherdeva K, Ekstrom AD (2011, November). Binding of spatial layout and temporal order information within the human hippocampal circuitry. Presented at the annual meeting of the Society for Neuroscience in Washington, DC.

Ragland JD, **Libby LA**, Yonelinas AP, Ranganath C (2010, December). Knowing to remember: Dual-process signal detection (DPSD) analysis of recollection and familiarity in schizophrenia. Presented at the annual meeting of the American College of Neuropsychopharmacologists in Miami Beach, FL.

Libby LA, Ekstrom AD, Ranganath C (2010, November). Defining resting state networks within the human hippocampal formation using high-resolution imaging and functional connectivity. Presented at the annual meeting of the Society for Neuroscience in San Diego, CA.

Hannula DE, **Libby LA**, Ranganath C (2010, November). Medial temporal lobe contributions to cued retrieval of items and context. Presented at the annual meeting of the Society for Neuroscience in San Diego, CA.

Libby LA, Ranganath C, Yonelinas AP, Haskins AL, Ramsay IS, Carter CS, Ragland JD (2010, May). Strategies for enhancing episodic memory in schizophrenia. Presented at the annual meeting of the Society of Biological Psychiatry in New Orleans, LA.

Libby LA, Nicodemus KK, Higier RG, Prust MJ, Tan HY, Buckholtz JW, Kolachana B, Straub RE, Weinberger DR, Callicott JH (2008, November). Allelic variation in NOS1AP is associated with altered prefrontal cortex function and functional connectivity during working memory. Presented at the annual meeting of the Society for Neuroscience in Washington, DC.

Yoshimi A, **Libby LA**, Higier RG, Tan HY, Weinberger DR, Callicott JH (2008, October). Earlier age of onset in schizophrenia is associated with inefficient prefrontal cortical function during working memory. Presented at the annual NIH Research Festival in Bethesda, MD.

Libby LA, Nicodemus KK, Higier RG, Prust MJ, Tan HY, Buckholtz JW, Kolachana B, Straub RE, Weinberger DR, Callicott JH (2008, June). Allelic variation in NOS1AP is associated with altered prefrontal cortex function and functional connectivity during working memory. Presented at the annual meeting of the Organization for Human Brain Mapping in Melbourne, Australia.

Tan HY, Chen Q, Higier RG, **Libby LA**, Prust MJ, Mattay VS, Weinberger DR, Callicott JH (2008, June). Brain network dynamics during working memory task events in relation to COMT Val(158)Met. Presented at the annual meeting of the Organization for Human Brain Mapping in Melbourne, Australia.

Libby LA, Golub N, Koslowski BM (2006, April). Evaluating explanations and anomalous information. Presented at the annual Spring Undergraduate Research Forum of the Cornell Undergraduate Research Board in Ithaca, NY.

TEACHING

2013 & 2015 Guest Lecturer, *Experimental Design and Statistical Analysis for Cognitive Neuroimaging,* Fundamentals of Cognitive Neuroimaging, UC Davis

2014 Teaching Assistant, Language and Cognition, UC Davis

2013 Co-Director, Medial Temporal Lobe Segmentation Bootcamp, UC Davis

- Organized a two-day seminar on manual segmentation of medial temporal lobe subregions on structural MRI images for undergraduate and graduate trainees.

2013 Director, Univariate and Multivariate fMRI Methods Workshop, University of Wisconsin, Milwaukee

- Invited to develop and lead a four-day workshop for faculty and graduate students on basic (GLM) and advanced (RSA) fMRI analysis approaches using custom FSL- and MATLAB-based tools.

2010 Teaching Assistant, Human Learning and Memory, UC Davis
- Taught bi-weekly discussion sections
- Guest lecturer, *Emotion and Memory*

2010 Teaching Assistant, Research Methods for Psychology, UC Davis

2004 Teaching Assistant, Calculus Preparation, Cornell University

RESEARCH MENTORING

Marika Inhoff (Graduate student, UC Davis, 2013–present)

Halle Zucker (Graduate student, UC Davis, 2013–present)

Shao-Fang Wang (Research assistant, UC Davis, 2013–2015; now at Stanford University)

Maria Montchal (Research assistant, UC Davis, 2011–2014; now at UC Irvine)

PROFESSIONAL SERVICE

Ad hoc reviewer, *Cerebral Cortex, The Journal of Neuroscience, NeuroImage, Neurobiology of Aging, Hippocampus, Journal of Affective Disorders, Neuropsychologia, Journal of Neurophysiology, Frontiers in Human Neuroscience, Cognitive Neuropsychiatry, Journal of Visualized Experiments*

Psychology Graduate Student Association, UC Davis
- Vice President (2012–2013)
- Graduate Curriculum Representative (2010–2012)

Colloquia Organizer, Perception, Cognition, and Cognitive Neuroscience Area, Department of Psychology, UC Davis (2011–2012)

PROFESSIONAL AFFILIATIONS

Cognitive Neuroscience Society (2010–present)

American Psychological Association (2009–present)

Society for Neuroscience (2008–present)

Psi Chi President, Cornell University Chapter (2006-2007), Member (2005–present)